decon mobility



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Original manual EN

e drive NXT

E-Drive NXT User manual

EU Declaration of Conformity • EU-Konformitätserklärung • Déclaration de conformité UE

decon mobility

The undersigned, representing the following manufacturer

Decon Wheel AB
Org. No. 556618-9006
SRN SE-MF-000046289
Södra Ekeryd 119, 314 91 Hyltebruk
Sweden,

hereby declares that the product **E-Drive NXT**

with the basic UDI-DI 735001014MEDB3

and the following references

MEDL416		
MEDL420	MEDL420HD	
MEDL422	MEDL422HD	
MEDL424	MEDL424HD	MEDL424M
MEDL425	MEDL425HD	
MEDL426	MEDL426HD	MEDL426M

is in conformity with the Medical Device Regulation (EU) 2017/745 as a class I medical device based on Annex VIII, in accordance with Annex II and Annex III; and the Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

The product incorporates a rechargeable Li-ion battery which is CE-marked and covered by a separate EU Declaration of Conformity issued under Regulation (EU) 2023/1542 on batteries and waste batteries.

Intended purpose: E-Drive NXT is an electrically powered drive unit intended to be mounted onto compatible manual wheelchairs to provide powered assistance and braking support during propulsion of individuals who are unable to walk or who have limited walking ability.

This EU declaration of conformity is issued under the sole responsibility of the manufacturer.

Hyltebruk, 2026-04-17

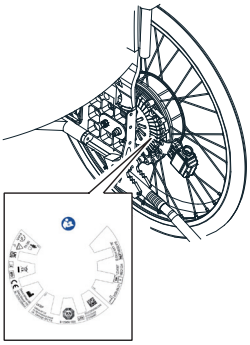
Mattias Lundin
CEO

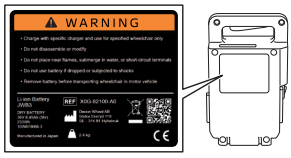
MADE BY DECON SINCE Creating Freedom 1989 POWERED BY YOU

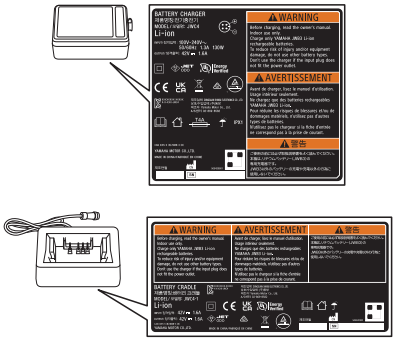
Responsibility

Decon can not be held responsible for product changes made by unauthorized people.
As part of an ongoing product improvement initiative, Decon reserves the right to change specifications and design without notice.

Label Location







Labels and CE marks are placed on the motor, on the battery on the battery charger and on the battery cradle.

The symbols used on the label of E-Drive NXT are explained below.

	Observe the instructions for use!		Maximum user weight
	Maximum speed of the device		Rated slope
MD	Medical device	SN	Serial number of the device
	Date of manufacture		Name and address of the manufacturer
REF	Catalogue number of the device	UDI	Unique Device Identificator
	How to dispose E-Drive NXT and its components, see chapter 9		
	ISO 7010-M002, Refer to instruction manual/booklet!		

Please Read Before Use

Foreword

Thank you for purchasing the E-Drive NXT.

Before using E-Drive NXT, the wheelchair user and/or assistent shall undergo training in the correct handling of the drive unit. During the training, the wheelchair user and/or assistent shall also be informed of potential risks associated with improper or unintended use.

The training shall be conducted by Decon´s representative or distributor.

Personnel or technicians responsible for installation, technical inspection, maintenance, or service of E-Drive NXT must undergo technical training to ensure that all procedures are performed in accordance with Decon´s requirements and safety guidelines.

This is an instruction manual for the electric power unit for wheelchairs “E-Drive NXT”.
Improper use of this product may result in injury or damage to the product.
This manual provides information to help you use the product safely and comfortably.
Before using this product, be sure to read this manual in conjunction with the instruction manual for the wheelchair equipped with this product to ensure that you fully understand the product before use.

- The wheelchairs on which E-Drive NXT has been installed are wheelchairs for physically handicapped people, and their legal status is that of a pedestrian. Make sure to adhere to the traffic rules and manners of a pedestrian.
- To ensure safe use, warning labels are affixed to various parts of this product. Make sure to adhere to the warning labels. Refer to “1 Using This Product, Warning Label Location Diagram”
- Do not use this product for any purpose other than the wheelchair.
- Some of the illustrations in this manual are images of general wheelchairs. The actual product may be different than that shown.
- E-Drive NXT is replacing the original wheels of your wheelchair. Please check your wheelchair manual for changing any settings to the wheelchair. Be aware that some adjustments can influence the stability of the wheelchair. Please always use the anti-tip devices.
- Please note that the contents of this manual may differ from the actual product you are using due to changes in product specifications.
  •Hereinafter, “this product” refers to the electric power unit for wheelchairs “E-Drive NXT”.
  •Hereinafter, "wheelchair" refers to the wheelchair equipped with this product.

Handling of Personal Information

- Diagnostic code or any information related to the product which dealer or reseller collected from maintenance application may be shared with supplier for the purpose of providing repair service.

CE

The E-Drive NXT and its accessories comply with the applicable sections of standard EN12184 for electric wheelchairs and comply with the EU Medical Devices Regulation (EU) 2017/745.

The E-Drive NXT is equipped with a Bluetooth module with model name FWM7BLZ20B that complies with the Radio Equipment directive (20141531EU)

Bluetooth®

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc.

Structure of the manual

- This manual describes how to use the product, such as handling, controlling, inspecting, storing, transporting, troubleshooting, and specifications of each part of the electric power unit for wheelchairs.

For details on how to use a wheelchair equipped with this product, refer to the wheelchair's instruction manual.

Intended Purpose

Intended use
E-Drive NXT is an electrically powered drive unit intended to be mounted onto compatible manual wheelchairs to provide powered assistance and braking support during propulsion of individuals who are unable to walk or who have limited walking ability.

Indications for use
E-Drive NXT is indicated for individuals who use a manually propelled wheelchair but are unable to self-propel sufficiently to meet their mobility needs and therefore require powered propulsion assistance.

Intended patient population
The intended patient population is individuals of any age, including children, who use a manual wheelchair and require powered assistance due to limited or absent self-propulsion ability. Maximum permitted user weight is 160 kg depending on configuration and manual wheelchair.

Intended users
The intended user and operator of E-Drive NXT may be the occupant sitting in the wheelchair who is of any age, including children, capable of operating a powered-assist wheelchair safely, has limited or no ability to self-propel and does not exceed the maximum permitted user weight. The user and operator of E-Drive NXT may also be an assistant.

The operator of E-Drive NXT must be physically capable of safely controlling the manual wheelchair with E-Drive NXT attached. The operator must also be cognitively capable of understanding and executing safe operation, including maneuvering, braking and responding to emergency situations.

Intended operating environment
E-Drive NXT is intended to be operated within temperature range -25°C to +50°C in indoors and outdoors environments on firm, even and stable surfaces suitable for wheelchair operation.

Contraindications
E-Drive NXT must not be used if the operator lacks the physical, sensory or cognitive ability to safely operate a manual wheelchair with powered assistance.

Symbols Used in This Manual

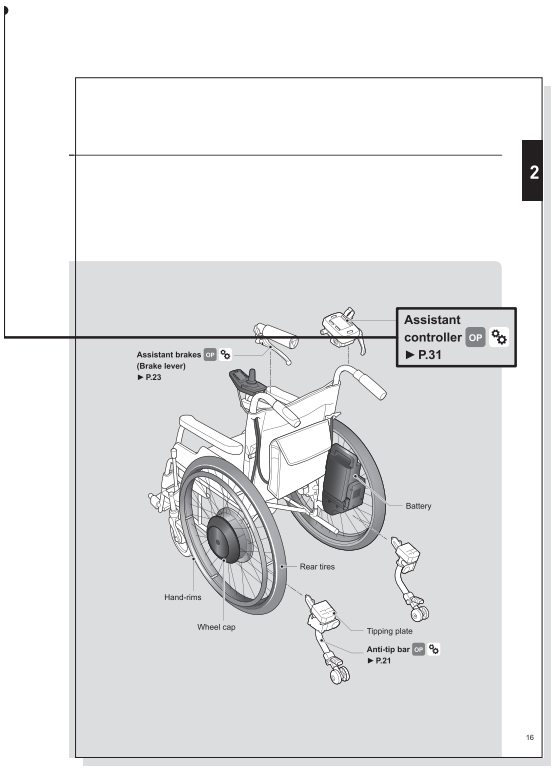
⚠	Indicates safety-related cautionary information.
⚠ WARNING	Indicates that misuse may lead to fatal or severe injury, or disability.
NOTICE	Indicates that misuse may lead to material damage.
TIP	Indicates correct methods and key points when operating the product.
⃠	Indicates prohibited actions.

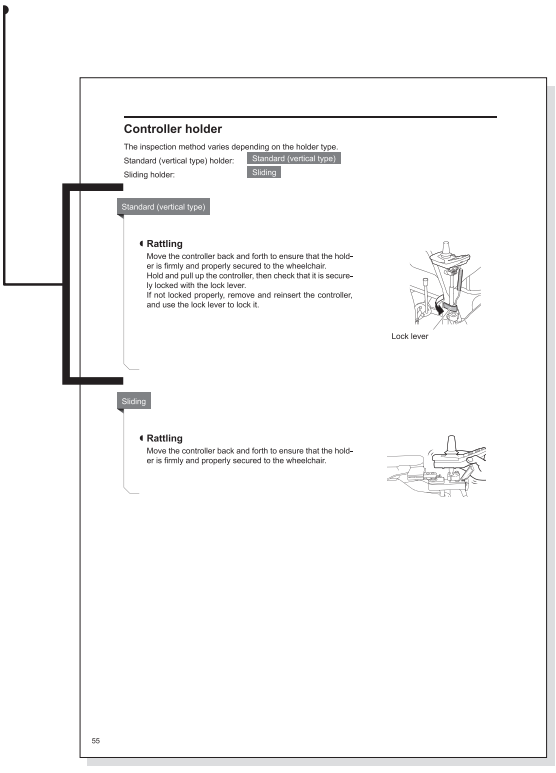
OP This part is sold separately.

Indicates parts that can be adjusted for position or angle.

Vertical

Indicates that the instructions may vary depending on your product or equipment.

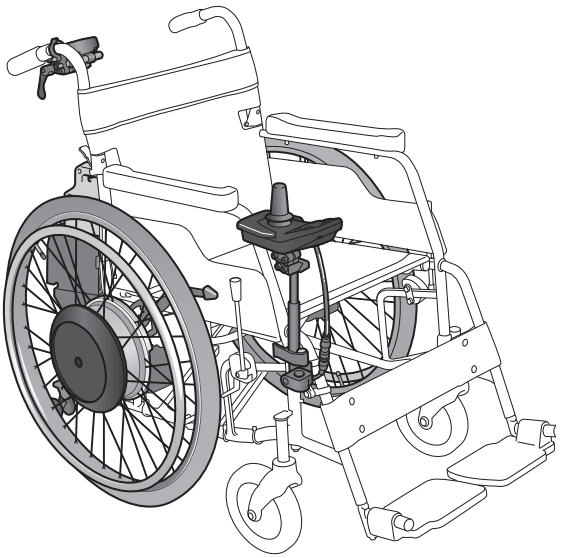




Check the illustration below to see which product you are using.

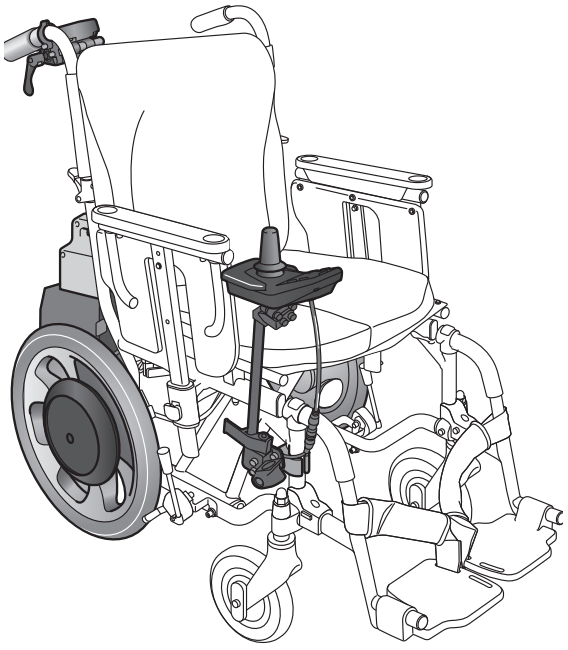
The illustrations in this manual are based on the E-Drive NXT (20-26 inch). Please note that the actual product you are using may differ depending on the specifications and the location where the 16 inch tires are used.

Electric Power Unit for Wheelchairs “E-Drive NXT (20-26 inch)”



The user weight capacity of E-Drive NXT is 160 kg.

Electric Power Unit for Wheelchairs “E-Drive NXT (16 inch)”



The user weight capacity of E-Drive NXT is 160 kg.

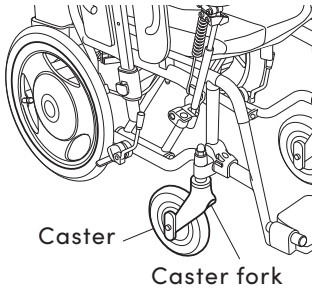
This product consists of the left and right drive units, the joystick-equipped controller, the battery, optional battery bag, the battery charger, and the optional assistant controller. These components, except for the battery and charger, are already installed to the wheelchair frame. For the initial use, the customer does not have to use tools, and so on, to assemble the wheelchair. Refer to “2. Names of Parts” to ensure that these components are installed to the wheelchair that you purchased and that the battery and charger are included. If you visually notice that any of these components are not installed, are not included, or are damaged before using the wheelchair, immediately contact the dealer without using the wheelchair.

For information for operating the wheelchair frame and warranty for the frame with which you are using the E-Drive NXT see the frame manual.

For information on compatible wheelchair models for mounting E-Drive NXT, visit Decon´s website (www.decon.se/en). Select “Adapters”, then find “Find manufacturer or chair”, and enter the relevant manufacturer or wheelchair model.

To define a specific user weight, please refer to the “Weight Calculator” on Decon´s website, www.decon.se/en

Check to ensure that the caster size is at least 6”.



This user manual printed in large letters is available for visually impared persons. Ask your dealership.

⚠ WARNING

- **Read and understand this manual completely before operating your E-Drive NXT product. This manual should be considered a permanent part of your product and should remain with it.**

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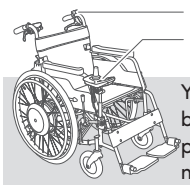
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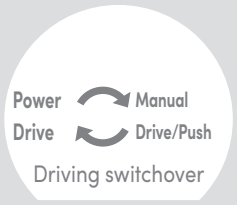
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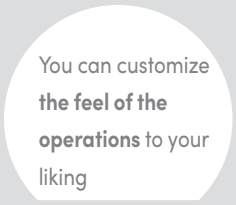
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Product Features

This product combines the driving performance of an electric wheelchair with the easy handling of a manual wheelchair, and you can choose the settings and specifications that suit your environment.



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1 Using This Product

This is an instruction manual for the electric power unit for wheelchairs.
Please be sure to read this instruction manual in conjunction with the instruction manual for the wheelchair in which this product will be installed to ensure that you fully understand the product before use.
This chapter describes warning information that you must understand when using the electric power unit for wheelchairs.
Be sure that the user as well as the assistant or the caregiver, have read this manual to assure full understanding of the warning information.

Generally speaking, riding in a electric powered wheelchair incurs the possible risk of personal injury or damage to the wheelchair from improper use. Depending on the type or extent of the disabilities of the user, it might be dangerous to travel unaccompanied.
Before using the electric powered wheelchair, be sure that not only the user, but also the assistant, has read this manual to assure full understanding.

Using This Product

⚠ WARNING

- **Before using a wheelchair, be sure to assess your competence and determine whether or not you need an assistant. Moreover, in determining the necessity of an assistant, consult expert opinions of physical therapists, occupational therapists, and other specialists as a point of reference.**

  If your judgment is based solely on your own opinion, making an incorrect judgment may result in injury to you or other people around you.

- **Practice driving the wheelchair on a flat, safe surface, accompanied by an assistant, until you become familiar with the operation of the wheelchair.**

  Driving the wheelchair on the road without getting familiar with the operation may cause injury to you or other people around you.

- **If you bump or rub the wheelchair against a wall or other surfaces, make sure there are no scratches or nicks on the wheelchair.**

  Scratches or nicks on the wheelchair can cause injuries to you if you come in contact with them.

- **Do not modify this electric power unit.**

  Modifications may impair safety or affect its performance.

- **Never operate the wheelchair if you are not feeling well or after consuming alcohol or taking medicine that causes drowsiness.**

  Doing so may result in injury to you or other people around you.

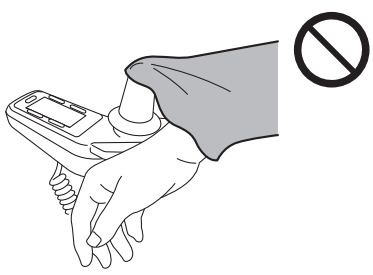
- **Do not ride the wheelchair in clothing unsafe for wheelchairs, such as shown below.**

  Operating the wheelchair in unsafe clothing may result in injury to you or other people around you.

  Long scarves

  Clothing with loose sleeves

Notice

- **If you detect any problem that you cannot resolve on your own (if you are unable to resolve the malfunctioning using the "troubleshooting"), stop using the wheelchair and consult your dealership.**
  Continuing to use the wheelchair in such a state may cause damage to the electric power unit or the wheelchair to stop while traveling.

Hazard-prone Road Surfaces

⚠ WARNING

- **In the case of an emergency, have the assistant switch the clutch levers to the manual drive position or push position, and move the wheelchair to a safe location.**

- **In the following environments and situations, have an assistant to accompany you.**
  Traveling alone in these situations may result in injury.

- **Check for any dangers such as shown below on the roads you use on a daily basis.**
  If there are hazardous areas, choose a route that avoids the hazardous areas.

- **Gravel roads, muddy roads**
  The wheelchair casters and rear tires may get buried in and become stuck.



- **Side gutters, sewer covers**
  When traveling on surfaces with gaps, the casters or rear tires may fall into the gap.



- **Roads with snow and water puddles**
  - The wheelchair may slip and become uncontrollable or the brakes may become ineffective.
  - If the wheelchair travels through a puddle and water enters the drive units, the wheelchair could stop.



- **Large dip in the road**
  Avoid dips in the road and sidewalks due to car ramps.
  If you go straight into the dip, the wheelchair may tip over. If you have no choice but to keep going, do so with an assistant accompanying you to ensure safety.



Hazard-prone Environments

⚠ WARNING

- **In the case of an emergency, have the assistant switch the clutch levers to the manual drive position or push position, and move the wheelchair to a safe location.**

- **In the following environments and situations, have an assistant accompany you or request an attendant at stations and bus stops.**

  Traveling alone in these situations may result in injury.

- **Check for any dangers such as shown below on the roads you use on a daily basis.**

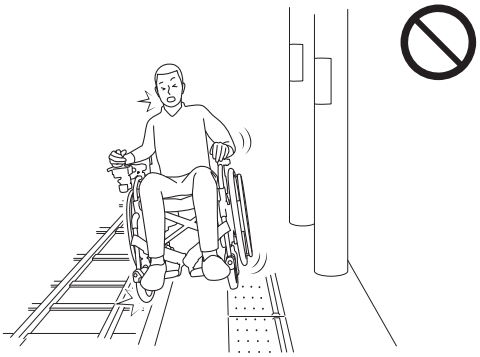
  If there are hazardous areas, choose a route that avoids the hazardous areas.

- **When using public transportation, check to ensure that wheelchair use is allowed beforehand. In addition, follow the rules and instructions when boarding the vehicle.**

- **When using a private automobile, it is recommended to move to a fixed seat in the vehicle and use the three-point safety belt.**
- **When getting on/off a lift vehicle, always have an assistant accompany you to ensure safety.**

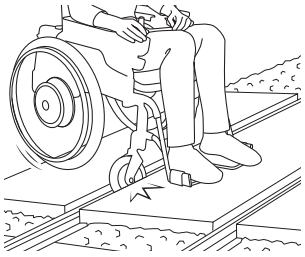
- **Train platforms**

  There is a risk of falling onto the tracks.



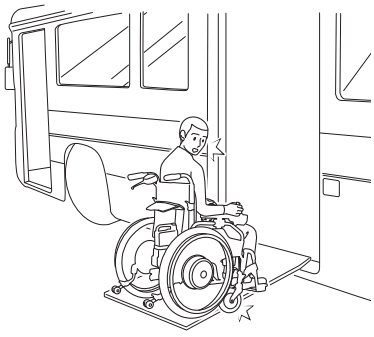
- **Railroad crossings, tram tracks**

  There is a risk of wheels getting caught into the gaps in the tracks.



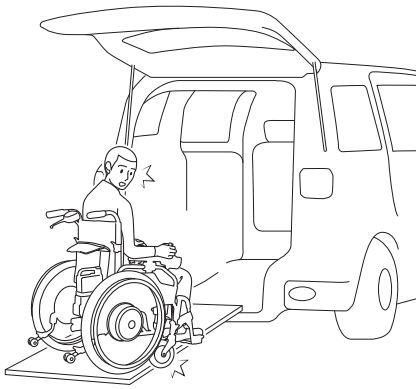
- **Getting on/off buses or trains**

  The wheels may fall off the ramp or into the gap between the platform and the train.



- **Getting on/off lift vehicles**

  There is a risk of wheelchair coming off the ramp.



⚠ WARNING

● **Getting on/off unfamiliar slopes**

When traveling on unfamiliar slopes, have an assistant accompany you to ensure safety.

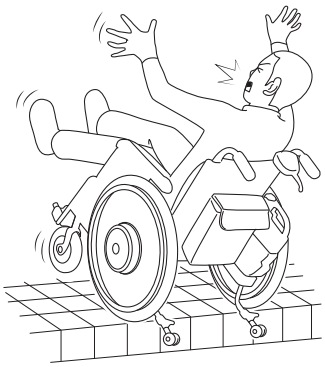
● **Areas where the wheelchair leans sharply to the left or right**

The wheelchair may tip over sideway.



● **Getting on/off curb**

- Always be aware of your surroundings and make sure you are safe.
- Have an assistant accompany you when getting on or off the curb for the first time to ensure safety.



● **Traveling at night**

- Not being able to see the road conditions may result in losing your balance, or colliding with vehicles.
- Wheelchair may not be visible to people around you or the car may collide into you if they cannot recognize you.



● **Sidewalk without guardrail**

The wheelchair may fall into the street side.



⚠ WARNING

- **Crossing unfamiliar roads**
  - When crossing a street without traffic signals, pay sufficient attention to the traffic.
  - Even at wide crosswalks with traffic signals, the signal may change before you finish crossing. In such places, wait for the next green light to give yourself enough time to cross the street.
  - It is extremely dangerous to travel on a narrow street. Choose a safer path whenever possible.
  - If the battery residual capacity is low, the wheelchair may stall while crossing a street. Check the battery residual capacity before crossing.

- **Near devices that generates strong radio waves**

  The electric power unit may malfunction, or operate abnormally.
  If the wheelchair is near a source of radio waves and starts to operate abnormally, immediately turn off the power, and quickly move away from that location using the assistant operations or manual operation.
  The weak electromagnetic waves emitted by the electric power unit may affect other electronic devices, such as automatic doors and the anti-theft systems of stores. In this case, turn off the power and operate the wheelchair using the assistant operations or manual operation.

Handling the Clutch Lever

⚠ WARNING

- **Do not switch the clutch levers to the manual drive position or push position in areas with an incline.**

  The wheelchair may start moving unexpectedly, and may collide or tip over.

- **Do not operate the clutch levers while the wheelchair is in motion.**

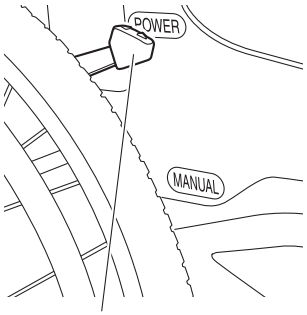
  There is a risk of collision or tipping over.

- **Do not switch the clutch levers to the manual drive position or push position while traveling in power drive position.**

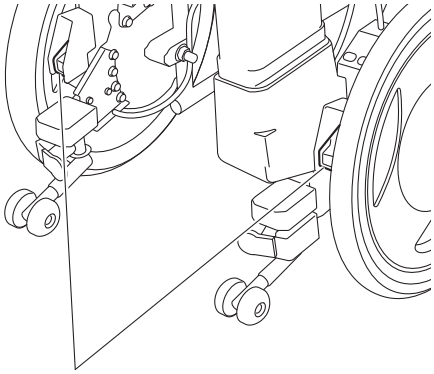
  Doing so, the motor brake may loses its effect. Especially on slopes, the wheelchair may go out of control.

- **Do not switch the clutch levers to the power drive position while traveling in the manual drive position.**

  If done so, the brakes are applied to the rear tires. This abrupt braking may cause your body to plunge forward by the reaction, causing injury to your or other people around you, or damage the wheelchair.



Clutch lever


Clutch levers

Keep in mind while riding

⚠ WARNING

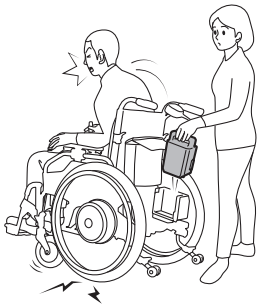
- **If you want to use a cellphone or smartphone, stop the wheelchair at a safe place and turn off the wheelchair.**

  Riding the wheelchair while using a cellphone or smartphone may cause an accident.



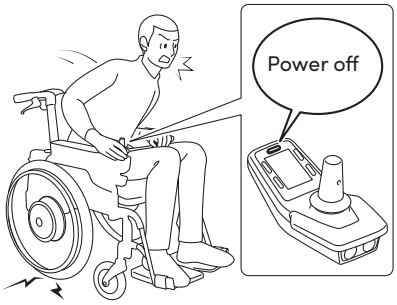
- **Do not disconnect the battery while traveling.**

  If done so, the brakes are applied to the rear tires. This abrupt braking may cause your body to plunge forward by the reaction, causing injury to your or other people around you, or damage the wheelchair.



- **Do not turn the power switch off while traveling.**

  If done so, the brakes are applied to the rear tires. This abrupt braking may cause your body to plunge forward by the reaction, causing injury to your or other people around you, or damage the wheelchair.



- **Do not ride the wheelchair while a USB device is connected to the USB power port.**

  Otherwise, the USB power port may be subjected to force and the controller may be damaged if the wheelchair bumps into an object.
  A cable connected to the USB device may get coiled around the joystick, the clutch lever, or a rear tire, possibly causing an accident.



- **While operating the wheelchair, be careful not to get your hands tangled in the wheel spokes, wheel holes, etc. You may injure yourself.**

About luggage

⚠ WARNING

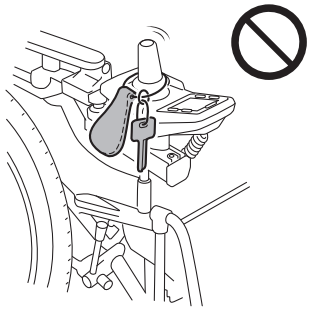
- **Do not hang anything over the arm supports or side guards.**

  If an object interferes with the rear tires, the rear tires may lock, resulting in a crash or fall.
  If an object interferes with the clutch levers, the clutch levers may unexpectedly switch to the manual drive position or push position, resulting in a crash or fall.



- **Do not hang any objects on the joystick of the controller.**

  The weight of the object may prevent the joystick from returning to its original position upon releasing, and the wheelchair may not stop or may interfere with the operation of the wheelchair.

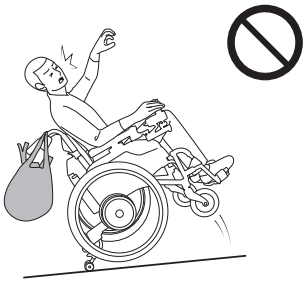


- **Do not put any rubber bands on the joystick of the controller.**

  If the rubber band gets jammed into the controller, it may prevent the joystick from return to its original position and the wheelchair may not stop.

- **Do not operate with any heavy baggage hanging over the backrest, or with any heavy objects in the compartment.**

  The wheelchair could easily fall backward on an inclined slope, and may cause you or people around you to get injured.



Other precautions

⚠ WARNING

- **When riding in the wheelchair in a crowded area, do so with sufficient attention to your surroundings.**

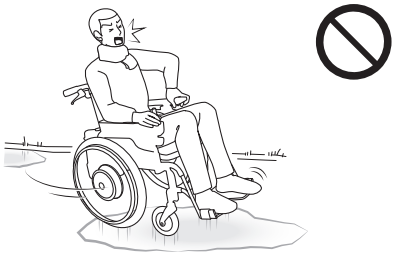
  If you bump into people or objects, your body may plunge forward by the reaction, causing injury to you or other people around you, or damage the wheelchair.

- **When you are stopped in a crowded area, be sure to turn off the power.**

  If a person in your surrounding area hits the joystick with his or her hand or arm, the wheelchair may start moving unexpectedly, causing injury to people around you.

- **Do not operate the wheelchair on frozen surfaces.**

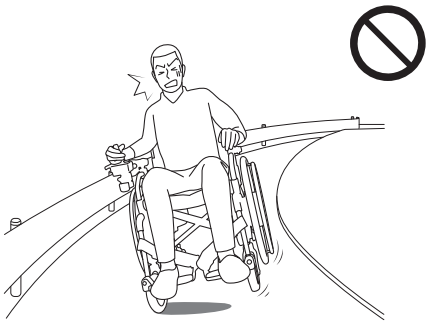
  The wheelchair may become uncontrollable or the brakes may become ineffective.



⚠ WARNING

- **Do not turn abruptly on a downhill slope.**
  You could easily lose balance and tip over.

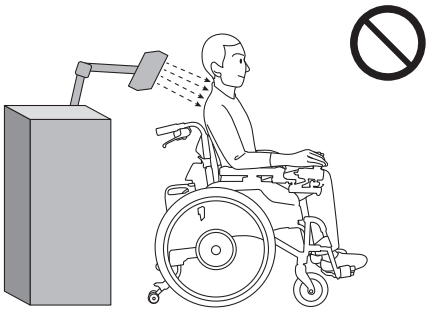
- **On a downhill slope, start the braking operation early.**
  The braking distance on a downhill slope may be significantly longer than when traveling on level ground.



- **Do not traverse horizontally or diagonally across a steep slope.**
  You could easily lose balance and tip over.

- **When moving past hedgerows and trees, maintain a sufficient distance to prevent the rear tires from coming into contact with twigs or other protruding objects.**
  If twigs or other objects from hedgerows and trees get caught in the rear tires when operating the wheelchair in power drive position, it may result in the rear tires becoming locked, the clutch lever being switched to the manual drive or push position, and collisions or the wheelchair tipping over.

- **Do not receive microwave thermotherapy while seated in the wheelchair.**
  The electromagnetic waves may result in the electric power unit malfunctions, accidental operations, and heated metal parts causing burns.
  Switch off the power to the electric power unit and place the wheelchair away from the microwave thermotherapy equipment.



- **Prolonged use of E Drive as the primary means of propulsion without regular manual propulsion or muscle activity may lead to reduced muscle strength in the arms and/or legs. Reduced muscle use can increase long term dependence on the device.**
  To reduce this risk:
  • Use manual propulsion regularly when possible.
  • Follow any training or exercise recommendations provided by healthcare professionals.
  • Do not rely on E Drive as the sole means of propulsion unless medically advised.

Notice

- **Continuous or prolonged UV exposure can damage your device. Avoid exposing your device to continuous or prolonged UV light as it can cause component materials to weaken and become brittle, and cause labels to become illegible and/or discolored**

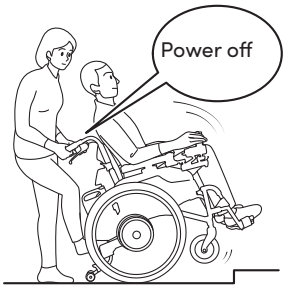
- **This product uses small parts which under certain circumstances may present a choking hazard to young children.**

During assisted operation

⚠ WARNING

- **When switching the clutch levers to the manual drive position or push position, park on a flat surface, apply the parking brake, and turn off the power switch.**
  The wheelchair may start moving unexpectedly, resulting in injury to you or other people around you.

- **When getting on/off over a curb or other obstacles, turn off the assistant controller and go over by manual operation.**
  Getting on/off while the wheelchair is in power drive position may cause the wheelchair to lose balance and tip over.



Powered Wheelchair Electromagnetic Interference (EMI)

Because EM energy rapidly becomes more intense as one moves closer to the transmitting antenna (source), the EM fields from hand-held radio wave sources (transceivers) are of special concern. It is possible to unintentionally bring high levels of EM energy very close to the powered wheelchair's control system while using these devices. This can affect powered wheelchair movement and braking. Therefore, the warnings listed below are recommended to prevent possible interference with the control system of the powered wheelchair.

⚠ WARNING

Electromagnetic interference (EMI) from sources such as radio and TV stations, amateur radio (HAM) transmitters, two-way radios, and cellular phones can affect powered wheelchairs and motorized scooters. Following the warnings listed below should reduce the chance of unintended brake release or powered wheelchair movement which could result in serious injury

1) Do not operate hand-held transceivers (transmitters - receivers), such as citizens band (CB) radios, or turn ON personal communication devices, such as cellular phones, while the powered wheelchair is turned ON;

2) Be aware of nearby transmitters, such as radio or TV stations, and try to avoid coming close to them;

3) If unintended movement or brake release occurs, turn the powered wheelchair OFF as soon as it is safe;

4) Be aware that adding accessories or components, or modifying the powered wheelchair, may make it more susceptible to EMI (Note: There is no easy way to evaluate their effect on the overall immunity of the powered wheelchair); and

5) Report all incidents of unintended movement or brake release to the powered wheelchair manufacturer or distributor, and note whether there is a source of EMI nearby.

Important Information

1) 20 volts per meter (V/m) is a generally achievable and useful immunity level against EMI (as of May 1994) (the higher the level, the greater the protection).
2) This product has an immunity level of 20 V/m.*

*) And it has an emission level of CISPR 11 Group 1 Class B.

CAUTION

IT IS VERY IMPORTANT THAT YOU READ THIS INFORMATION REGARDING THE POSSIBLE EFFECTS OF ELECTROMAGNETIC INTERFERENCE ON YOUR POWERED WHEELCHAIR.

Electromagnetic Interference (EMI) From Radio wave sources

Powered wheelchairs and motorized scooters (in this text, both will he referred to as powered wheelchairs) may be susceptible to electromagnetic interference (EMI), which is interfering electromagnetic energy (EM) emitted from sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two-way radios, and cellular phones. The interference (from radio wave sources) can cause the powered wheelchair to release its brakes, move by itself, or move in unintended directions. It can also permanently damage the powered wheelchair's control system. The intensity of the interfering EM energy can be measured in volts per meter (V/m). Each powered wheelchair can resist EMI up to a certain intensity. This is called its "immunity level." The higher the immunity level, the greater the protection. At this time, current technology is capable of achieving at least a 20 V/m immunity level, which would provide useful protection from the more common sources of radiated EMI. This powered wheelchair model as shipped, with no further modification, has an immunity level of 20 V/m.

There are a number of sources of relatively intense electromagnetic fields in the everyday environment. Some of these sources are obvious and easy to avoid. Others are not apparent and exposure is unavoidable. However, we believe that by following the warnings listed below, your risk to EMI will be minimized.

The sources of radiated EMI can be broadly classified into three types:

1) Hand-held portable transceivers (transmitters-receivers) with the antenna mounted directly on the transmitting unit. Examples include: citizens band (CB) radios, "walkie talkie," security, fire, and police transceivers, cellular telephones, and other personal communication devices. NOTE: some cellular telephones and similar devices transmit signals while they are ON, even when not being used;

2) Medium-range mobile transceivers, such as those used in police cars, fire trucks, ambulances, and taxis. These usually have the antenna mounted on the outside of the vehicle; and

3) Long-range transmitters and transceivers, such as commercial broadcast transmitters (radio and TV broadcast antenna towers) and amateur (HAM) radios.

NOTE: Other types of hand-held devices, such as cordless phones, laptop computers, AM/FM radios, TV sets, CD players, and cassette players, and small appliances, such as electric shavers and hair dryers, so far as we know, are not likely to cause EMI problems to your powered wheelchair.

Operation Diagnosis Check

Depending on the extent of your disabilities and physical condition, it may be dangerous to travel unaccompanied. Use this diagnosis check as a guide to determine whether or not you can travel unaccompanied in a wheelchair equipped with this product.

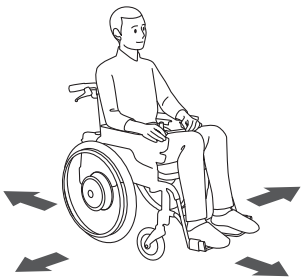
⚠ WARNING

- **Before traveling in the wheelchair, be sure to assess your competence and determine whether or not you need an assistant. Moreover, in determining the necessity of an assistant, consult expert opinions of physical therapists, occupational therapists, and other specialists as a point of reference.**
  If your judgment is based solely on your own opinion, making an incorrect judgment may result in injury to you or other people around you.

Diagnosis Check 1

(1) Are you able to operate the buttons on the controller at your own will?

(2) Are you able to tilt the joystick back and forth, left and right, to move the wheelchair as you wish, and then return the joystick to the center when you want to stop?



(3) Are you able to correctly perceive visually the conditions of the road surface and your surroundings, and avoid dangerous areas?

Yes to all

Have trouble operating one or more → Have an assistant to operate the wheelchair by assistive operation.

Diagnosis Check 2

(1) Are you able to operate the parking brakes and clutch levers?
(2) Are you able to get in and out of the wheelchair by yourself?
(3) Are you able to detach the battery?

Yes to all

Have trouble operating one or more → Have an assistant accompany you.

You can travel unaccompanied. For your safety, remember to travel carefully.
Always be sure to have an assistant accompany you in areas where caution is required, and travel with sufficient attention to safety.
► **P.2** “Hazard-prone Road Surfaces”, ► **P.3** “Hazard-prone Environments”

Assistive Operation Diagnosis Check (for wheelchairs equipped with assistant controller sold separately)

If the wheelchair is equipped with the separately sold assistant controller, use the diagnosis check as a guide to determine whether or not the person riding the wheelchair alone as well as the person riding the wheelchair with assistance can safely operate the wheelchair equipped with this product.

⚠ WARNING

- **In the case an assistant is accompanying or operating the wheelchair, determine the competence of the assistant. Moreover, in determining the competence of an assistant, consult expert opinions of physical therapists, occupational therapists, and other specialists as a point of reference.**
  If your judgment is based solely on your own opinion, making an incorrect judgment may result in injury to you or other people around you.

- **If you lack the competence to provide assistive operation, do not attempt to provide it.**
  Doing so may result in injury to you or other people around you.

Diagnosis Check

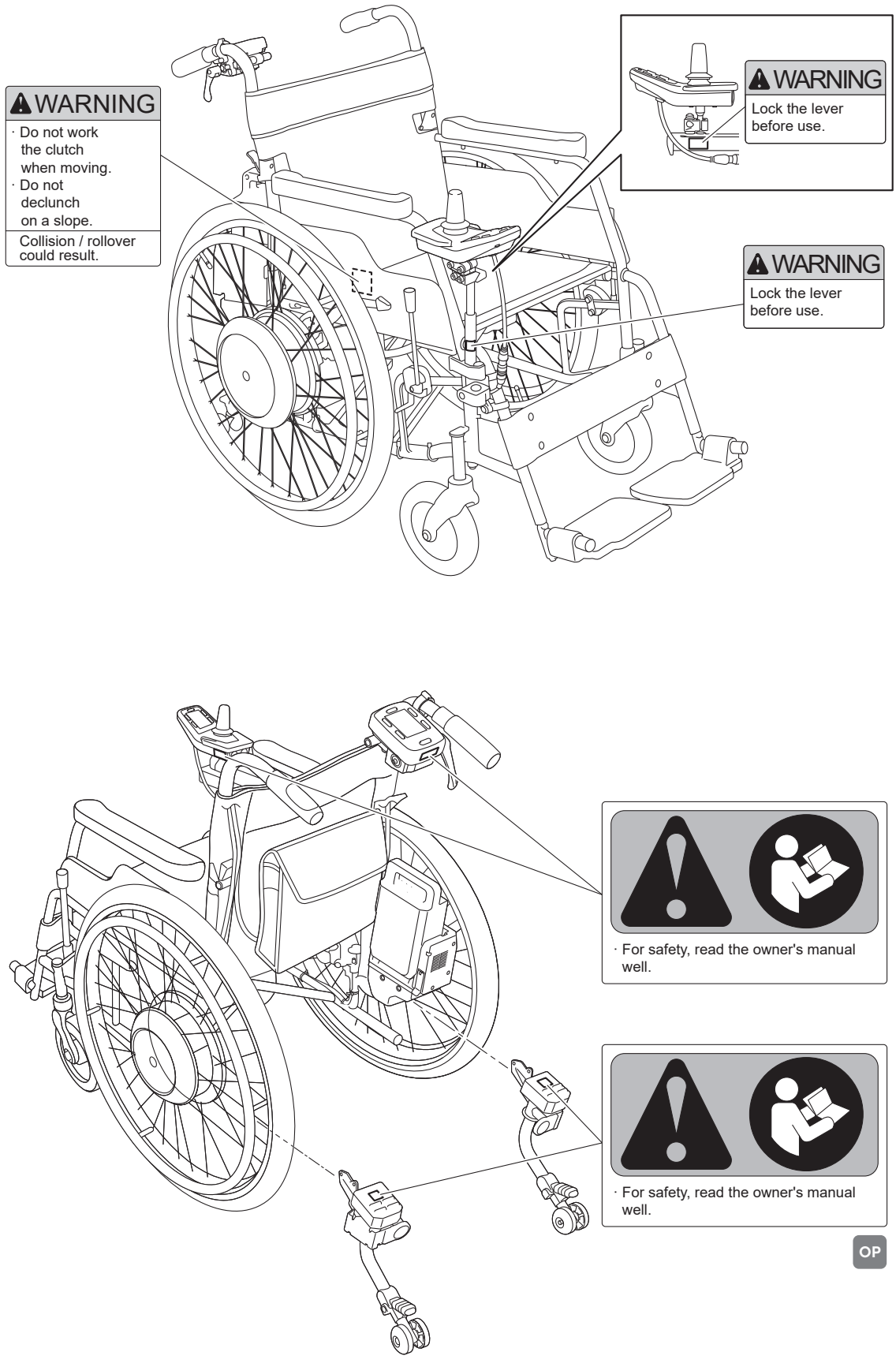
If you feel uncomfortable with any one of the following tasks, do not provide assistive operation.

(1) Are you able to correctly perceive visually the conditions of the road surface and your surroundings, and avoid dangerous areas?
(2) Are you able to assist the user to get on and off the wheelchair?
(3) Are you able to detach the battery?
(4) Are you able to provide assistive operation via a manual drive operation?

Warning Label Location Diagram

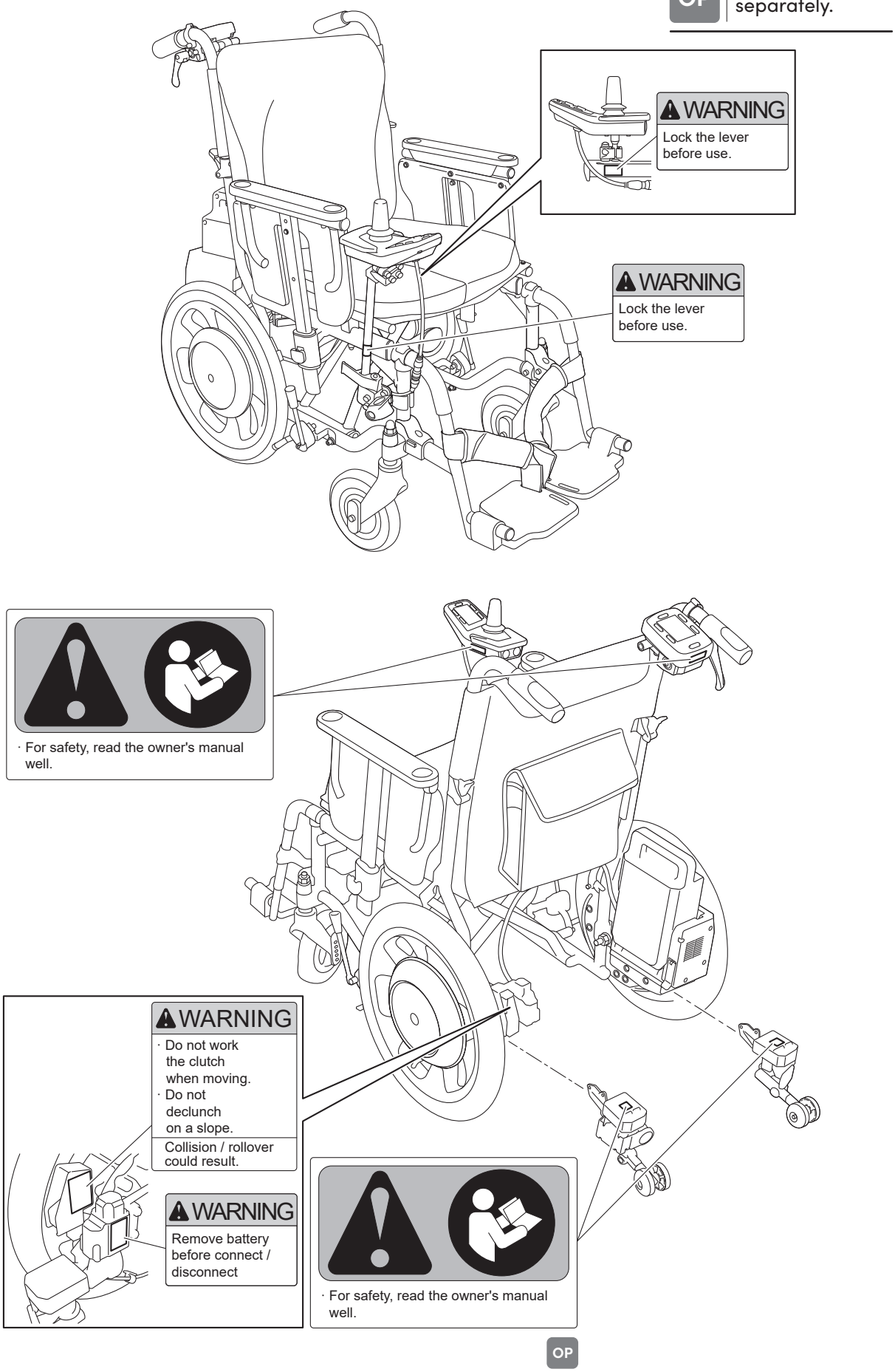
◖ Entire Wheelchair (20-26 inch)

OP | This part is sold separately.

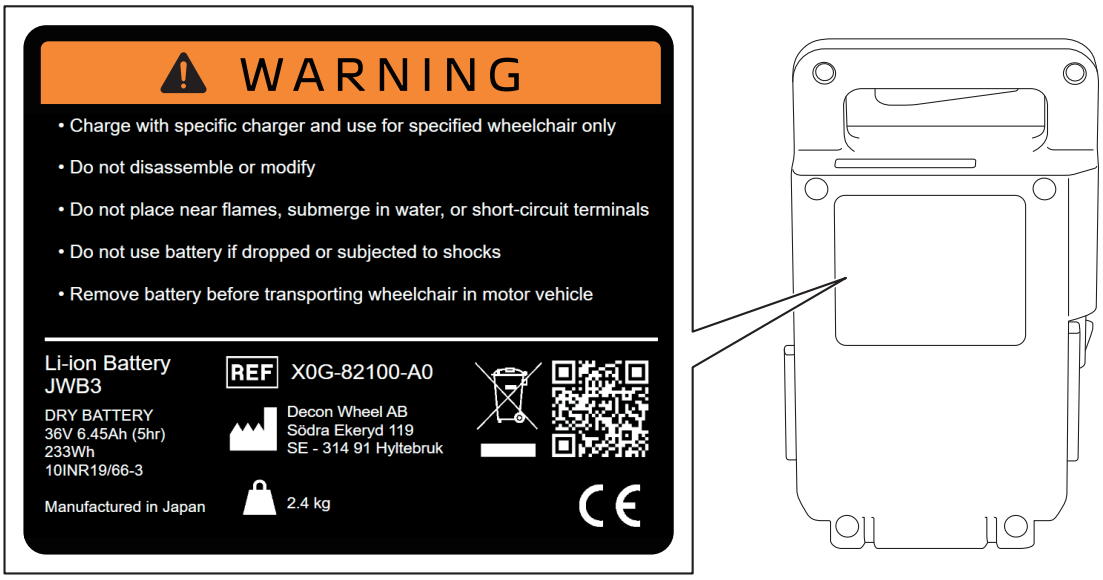


◖ Entire Wheelchair (16 inch)

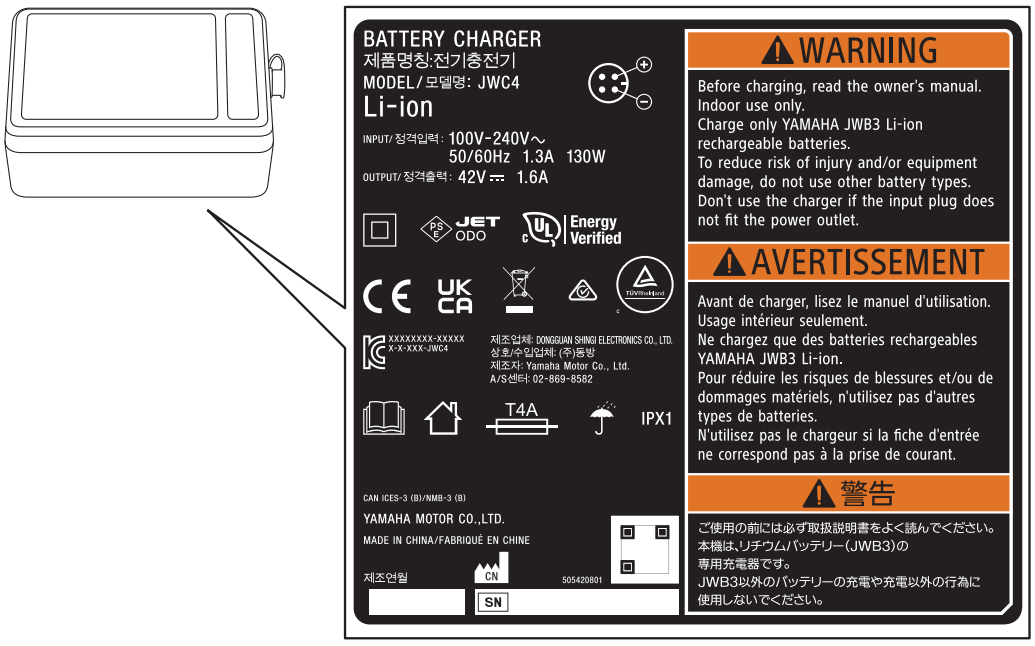
OP This part is sold separately.



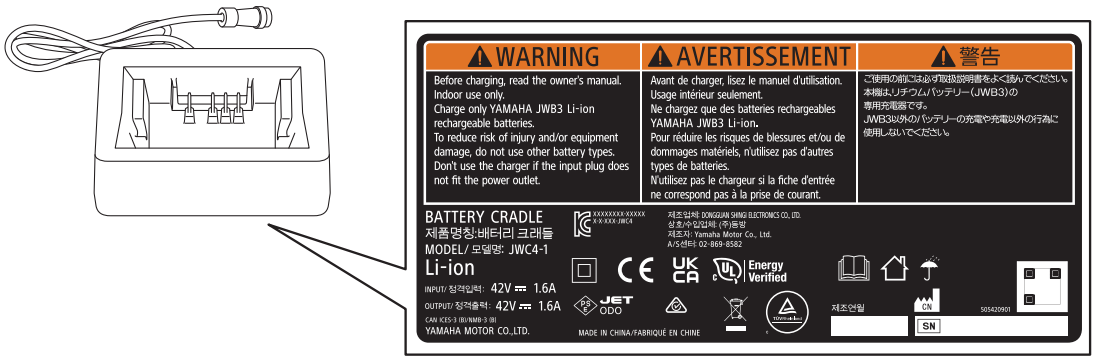
Lithium-ion Battery [Model: JWB3]



Battery Charger [Model: JWC4]



Cradle [Model: JWC4]



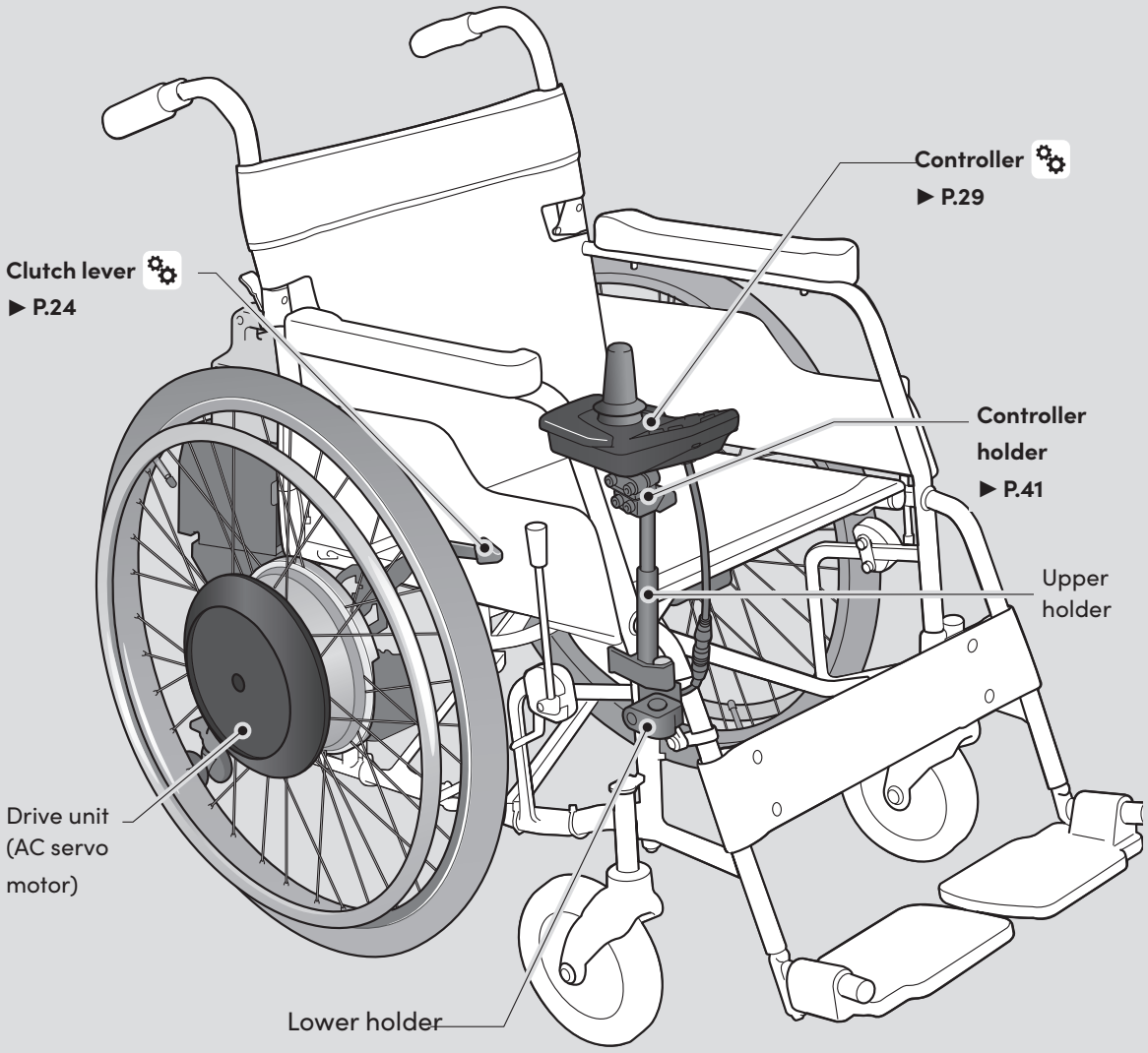
2 Names of Parts and How to Use

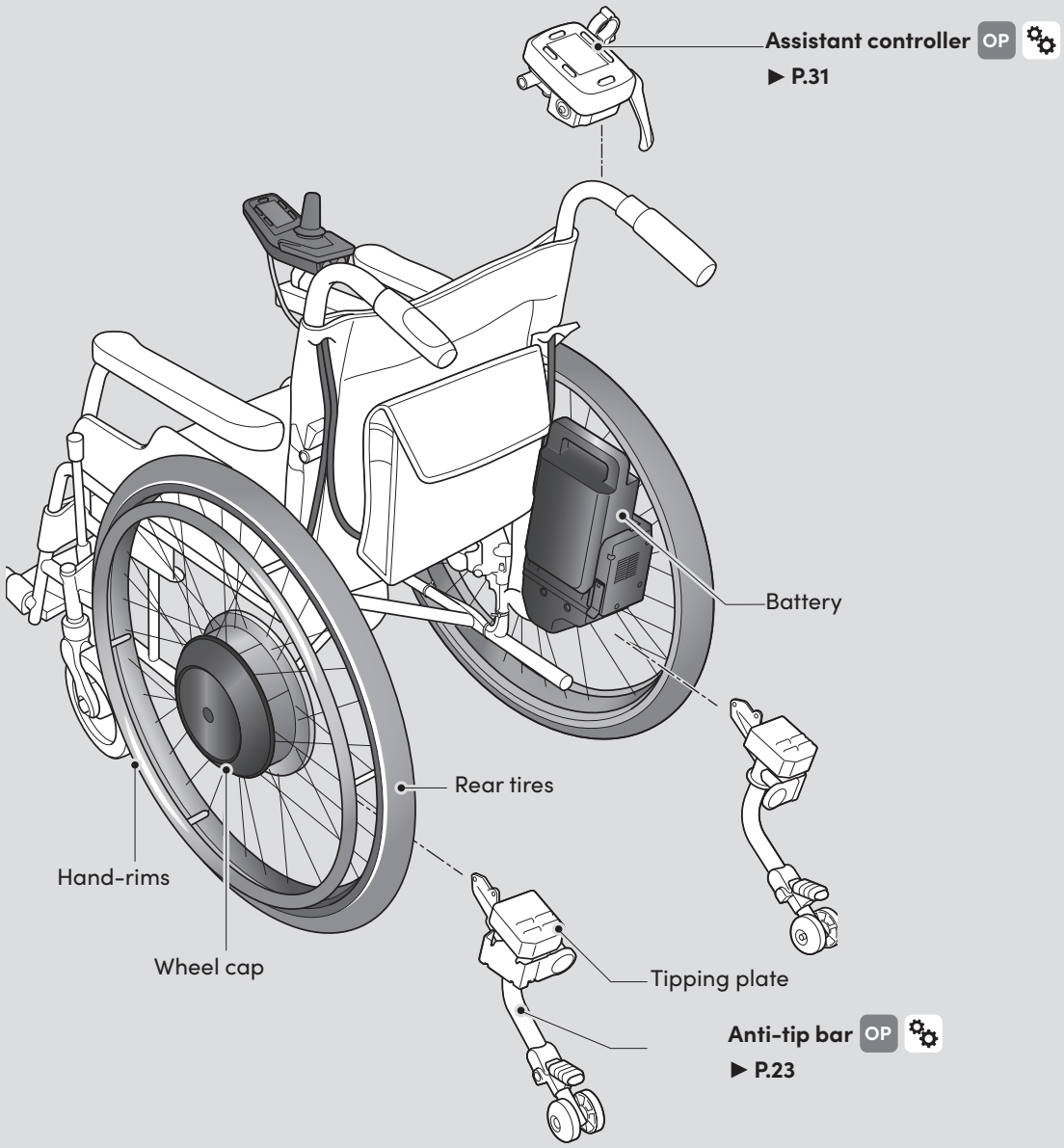
This chapter describes names of the parts of this product, their functions, and how to handle these parts.
For details on the parts shown in the illustrations below, refer to the explanation pages of the respective parts.

E-Drive NXT (20-26 inch)

Parts that can be adjusted for position or angle.

OP | This part is sold separately.



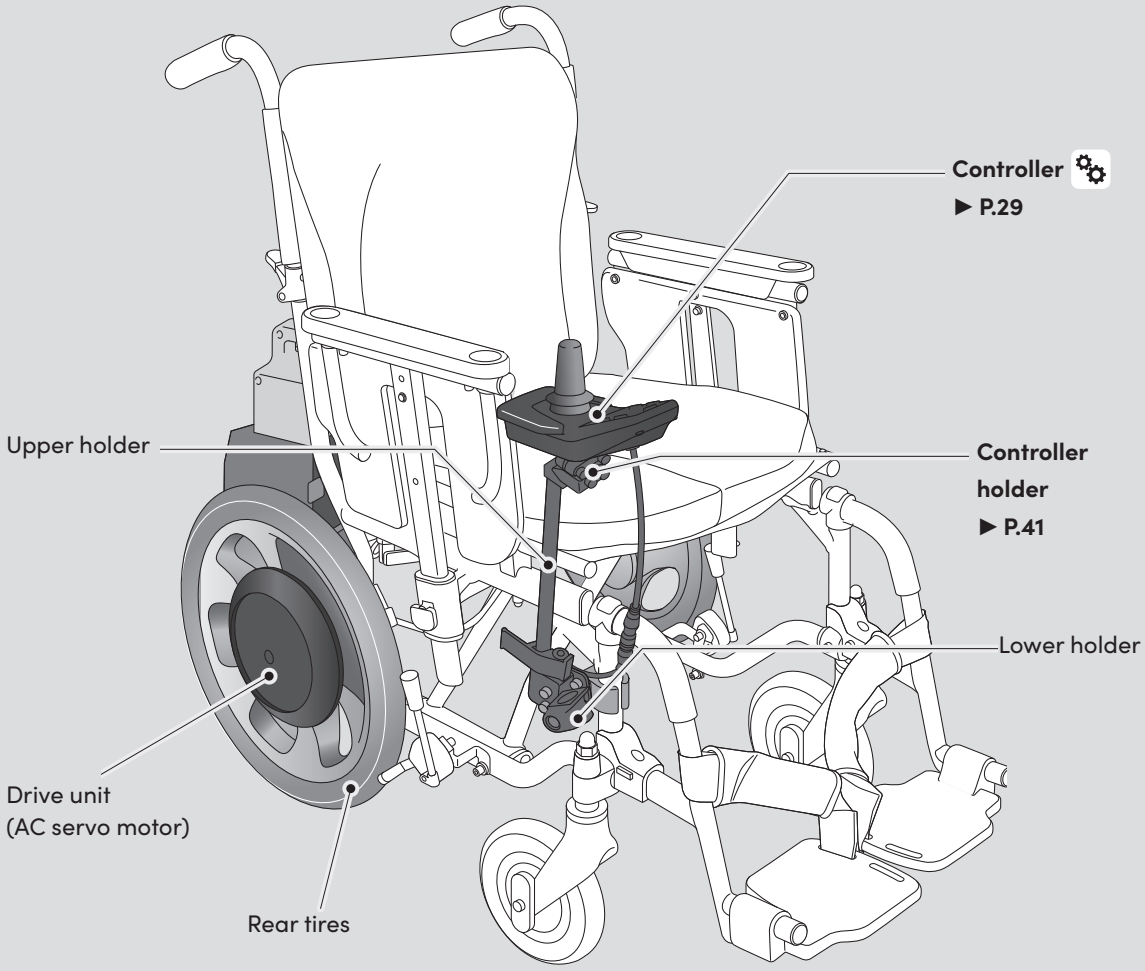

Assistant controller OP
► P.31
Battery
Rear tires
Hand-rims
Wheel cap
Tipping plate
Anti-tip bar OP
► P.23

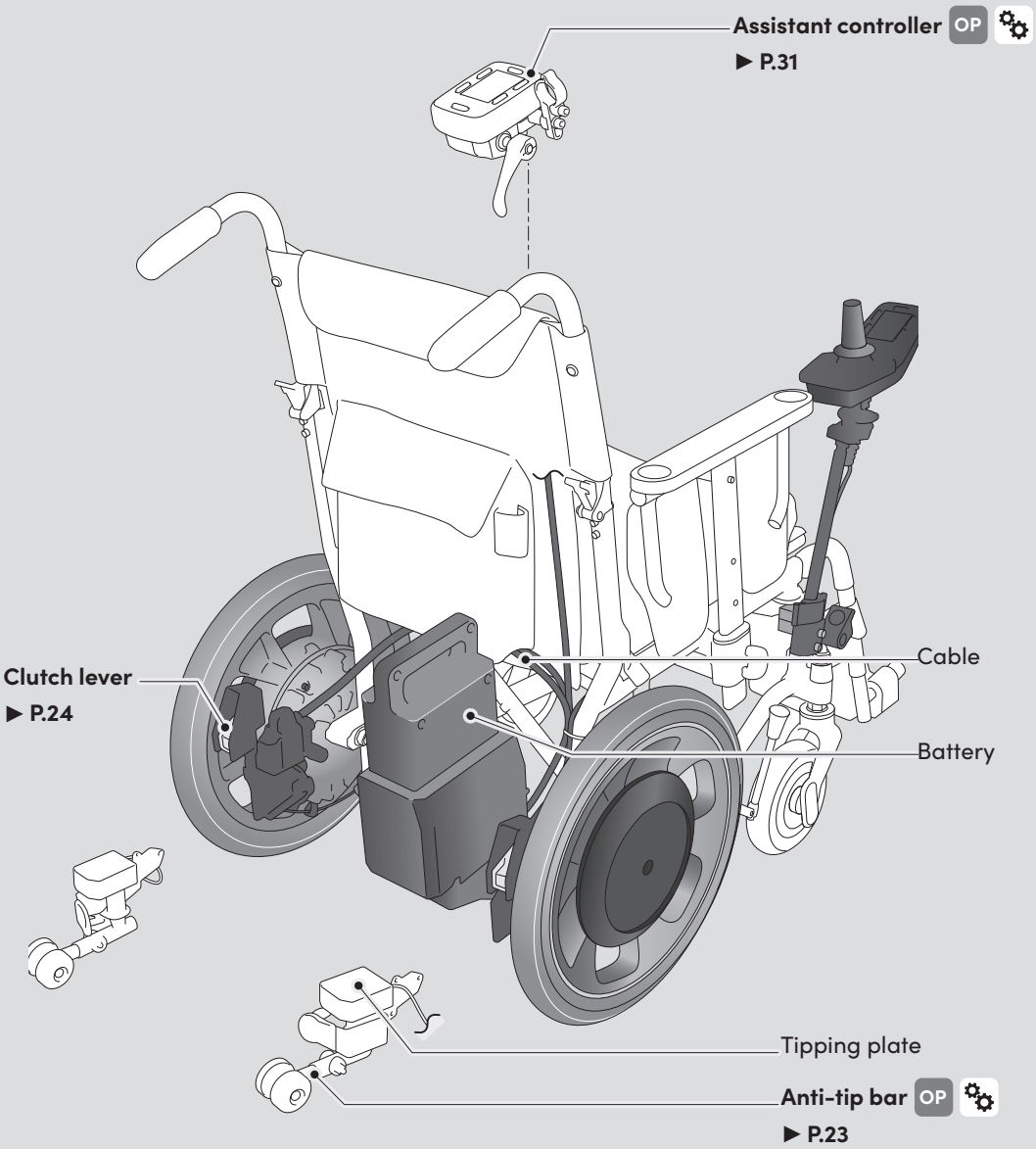
This chapter describes names of the parts of this product, their functions, and how to handle these parts.
For details on the parts shown in the illustrations below, refer to the explanation pages of the respective parts.

E-Drive NXT (16 inch)

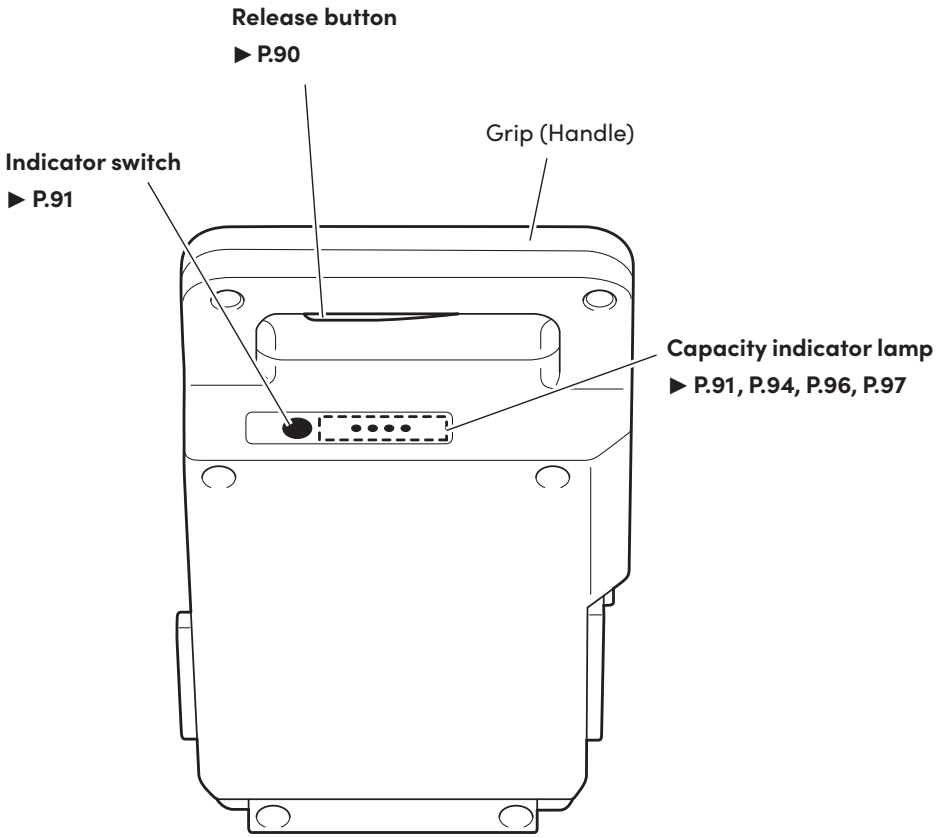
Parts that can be adjusted for position or angle.

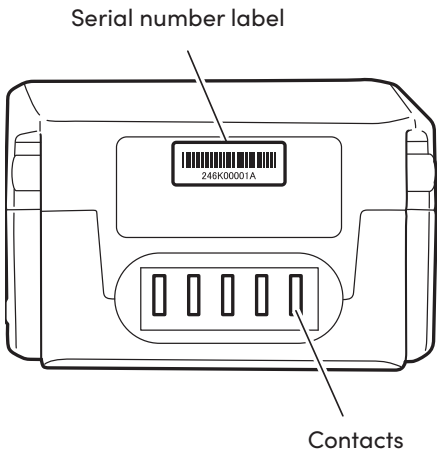
OP | This part is sold separately.



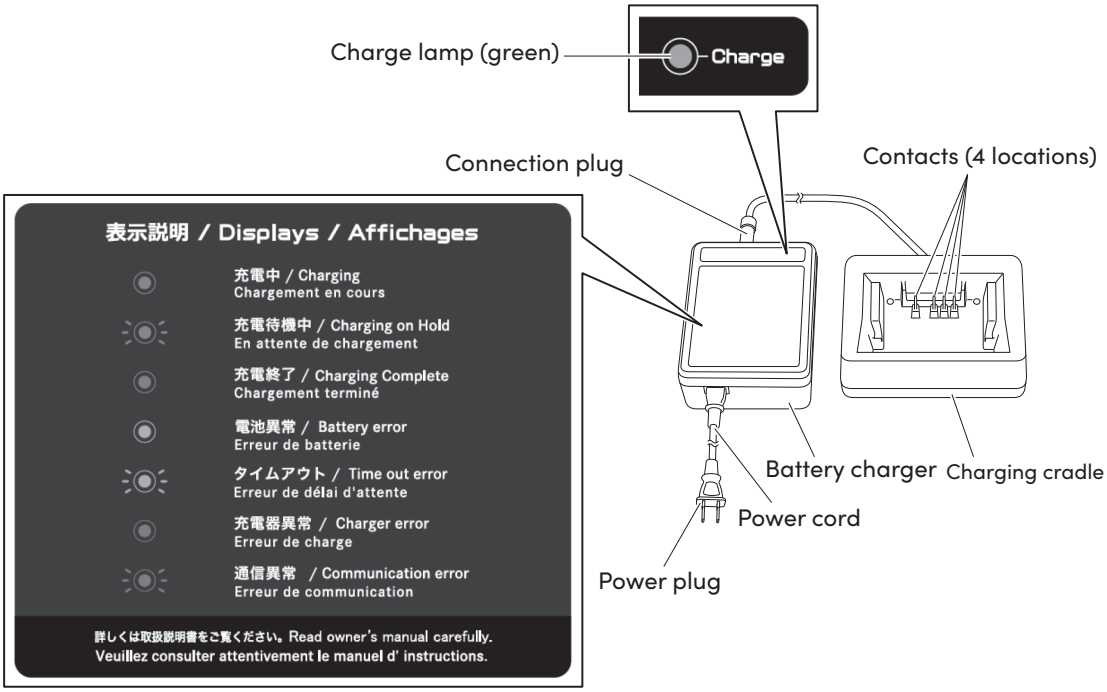

Assistant controller OP
► P.31
Clutch lever
► P.24
Cable
Battery
Tipping plate
Anti-tip bar OP
► P.23

Lithium-ion Battery [Model: JWB3]





Battery Charger/Cradle [Model: JWC4]

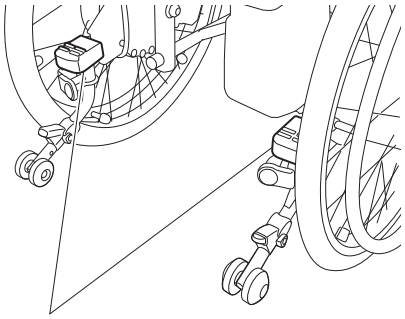


Anti-tip device (sold separately)

Prevents the wheelchair from tipping backward.
In unavoidable cases, such as traveling over a curb, the anti-tip bar can be folded.

⚠ WARNING

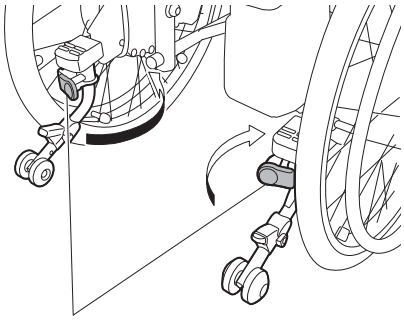
- **Do not step on the tipping plate portion of the anti-tip device.**
  Doing so can cause you to lose balance and tip over.



Tipping plate

How to fold/unfold

1 Push in the lock lever and rotate the anti-tip bar inward to fold it.



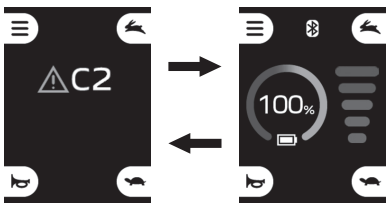
Lock lever

2 Return the anti-tip bar to the original position, and ensure that you hear a click to confirm that the lock is engaged.

3 Swing the anti-tip bar from side to side to ensure it is securely locked in place.

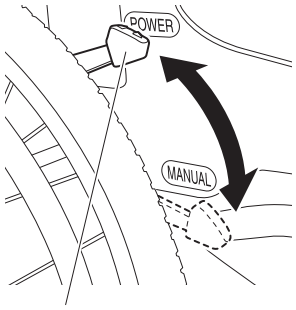
Notification function when the anti-tip bars remain retracted

If either of the anti-tip bars is not locked, “C2” or “C3” will be displayed on the LCD screen. At the same time, a continuous “beep” buzzer is sounded.
When you lock both of the anti-tip bars, the buzzer stops and the LCD display returns to the normal screen.
C2: The anti-tip bar remains retracted while stopped
C3: The anti-tip bar remains retracted while traveling



Clutch levers (20–26 inch)

Switches between power drive and manual drive mode.



Clutch lever

- **“Power Drive”**

  Allows you to operate the wheelchair in the power drive mode. When the wheelchair is not moving, the electromagnetic brakes are applied.

- **“Manual Drive”**

  Releases the clutch and allows manual operation. Except when you are operating the wheelchair with hand rims or when an assistant is operating the wheelchair using the hand grips, keep the clutch levers in the power drive position.

Clutch levers (16 inch)

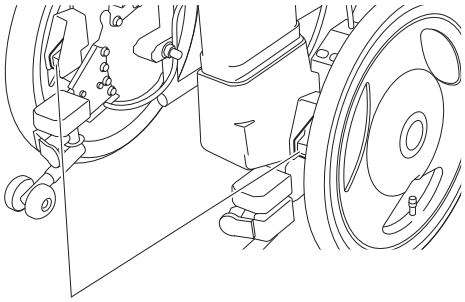
Each of the left and right electric power units is equipped with a clutch lever to allow you to switch between the power drive and push positions.
Except when the wheelchair is being pushed manually, use the wheelchair with both clutch levers set to the power drive position.

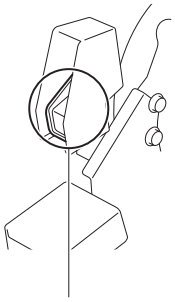
- **“Power Drive”**

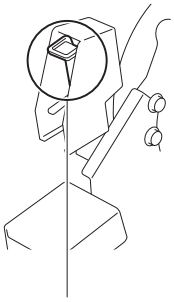
  Power drive traveling can be performed by operating the joystick or the assistant controller. When the joystick is not being operated, the electromagnetic brakes are applied to the rear tires.

- **“Push”**

  The clutch is released and the wheelchair can be moved by pushing.


Clutch levers


“Power Drive”

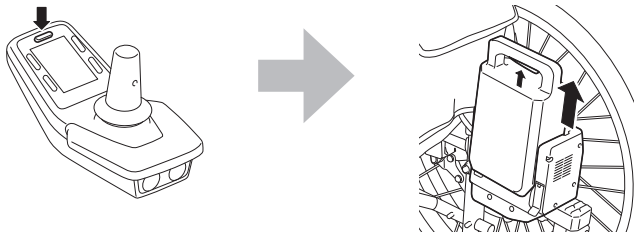

“Push”

Removing and Installing the Unit

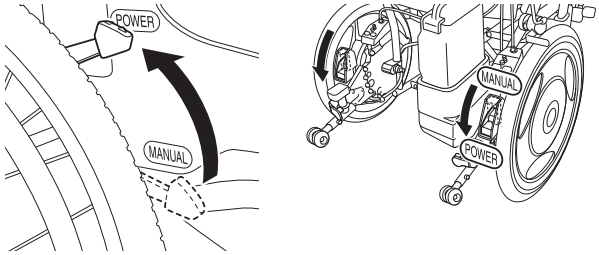
The power units of the E-Drive NXT can be removed from the frame when replacing the current wheels with manual wheels or when transporting the wheelchair.

Removing the power units from the frame

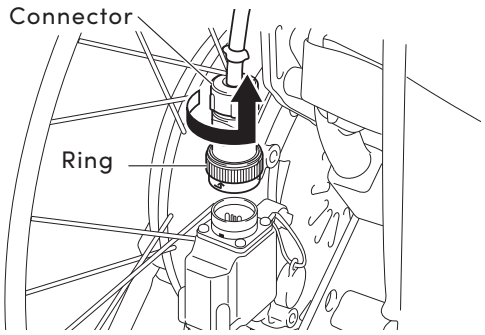
1 Turn off the power and remove the battery.



2 Switch the left and right clutches to the power drive position.



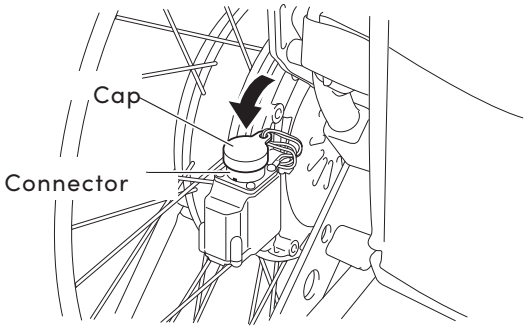
3 Turn the connector ring at the end of the cable counterclockwise while pulling the connector up to disconnect the cable.



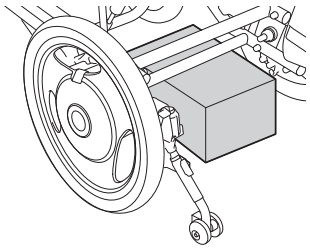
TIP

On models that feature an integrated battery seat, the connector is located on the left wheel.
On models that feature a detachable battery seat, a connector is located on both the left and right wheel.

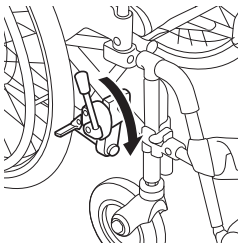
4 Attach the cap to prevent dirt or water from entering the connector.



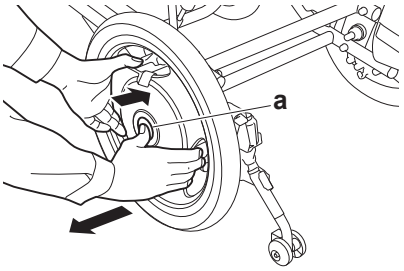
5 Place the wheelchair so that it will not become unstable when the power units are removed. (For example, as shown in the figure.)



6 Release the parking brakes.

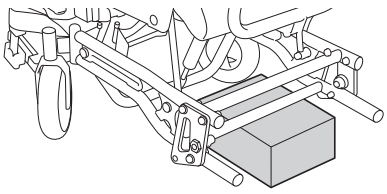


7 While holding the hub with both hands and pushing the middle of the center cap "a" with your fingers, pull out each power unit using both hands.



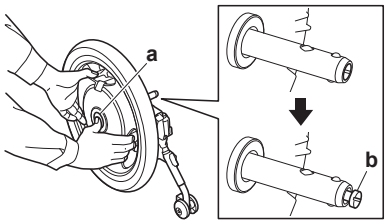
Installing the power units to the frame

1 Place the wheelchair so that it will not become unstable. (For example, as shown in the figure.)

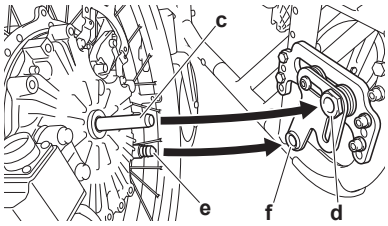


2 Switch the clutches on the units to the power drive position.

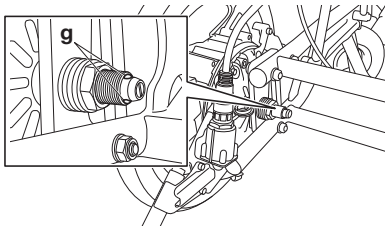
3 Push the middle of the center cap “a” with your fingers to make the end of the wheel axle “b” stick out and hold it in place.



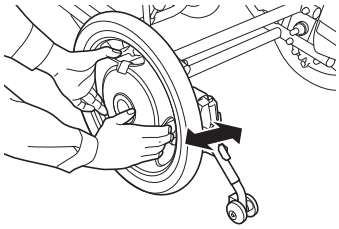
4 Align the axle “c” with the axle hole in the axle sleeve “d” and align the pin “e” on the wheel drive unit assembly with the hole in the stopper arm “f” and then fit them together.



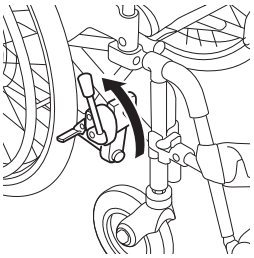
5 Push in each power unit completely. Check to ensure that the two balls “g” on the end of the axle can be seen completely and the pin “e” is securely inserted into stopper arm “f”.



6 Pull each power unit to ensure that it will not come off.

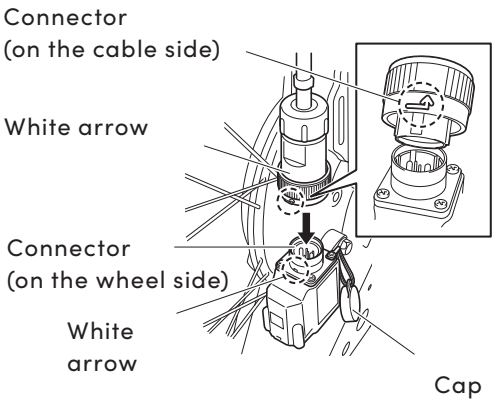


7 Place the power units in their normal position, and then apply the parking brakes.



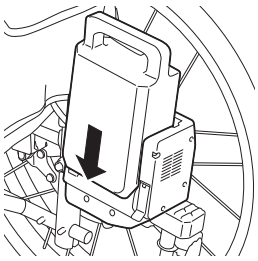
8 Remove the cap from the connector on the left wheel.

9 Align the white dot (arrow mark) on the connector at the end of the cable with the white arrow on the connector on the wheel side, and then push in the cable connector until it clicks. Connect the cable with an L mark to the connector with an L mark (on the wheel side), and connect the cable with an R mark to the connector with an R mark (on the wheel side).



10 Make sure that the connector will not be disconnected.

11 Install the battery.



WARNING

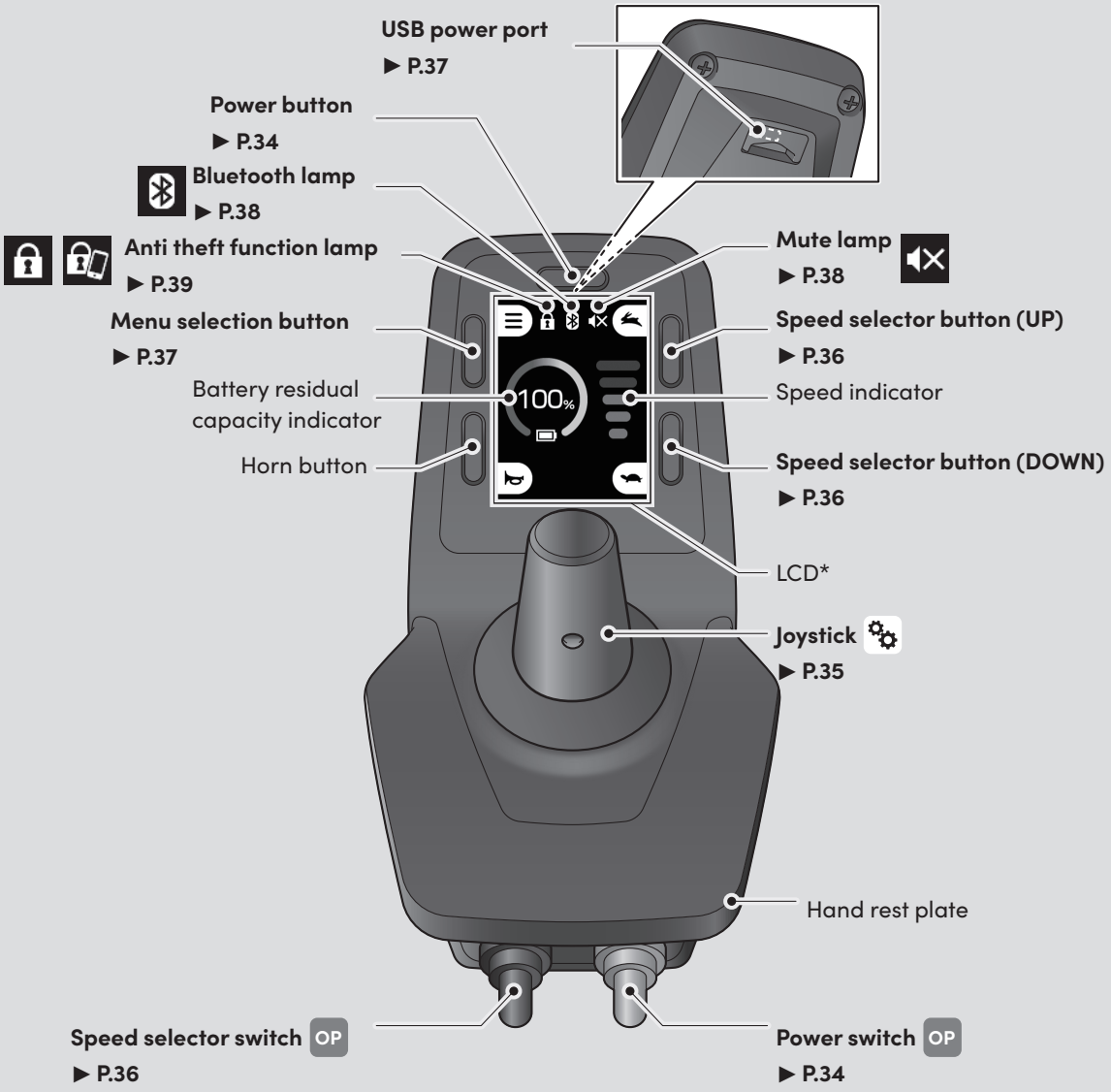
- **When a person is sitting in the wheelchair, do not remove or install the wheels. The person riding in the wheelchair or people around the wheelchair may get injured.**
- **After the power units are installed to the frame, be sure to check that the balls on the end of each axle can be seen, and that the units will not come off if pulled. If the axles are not secured, the axles could suddenly come off while the wheelchair is traveling and the wheelchair could tip over, causing serious injury.**

Controller

Home screen

The function of the buttons changes depending on the displayed screen.

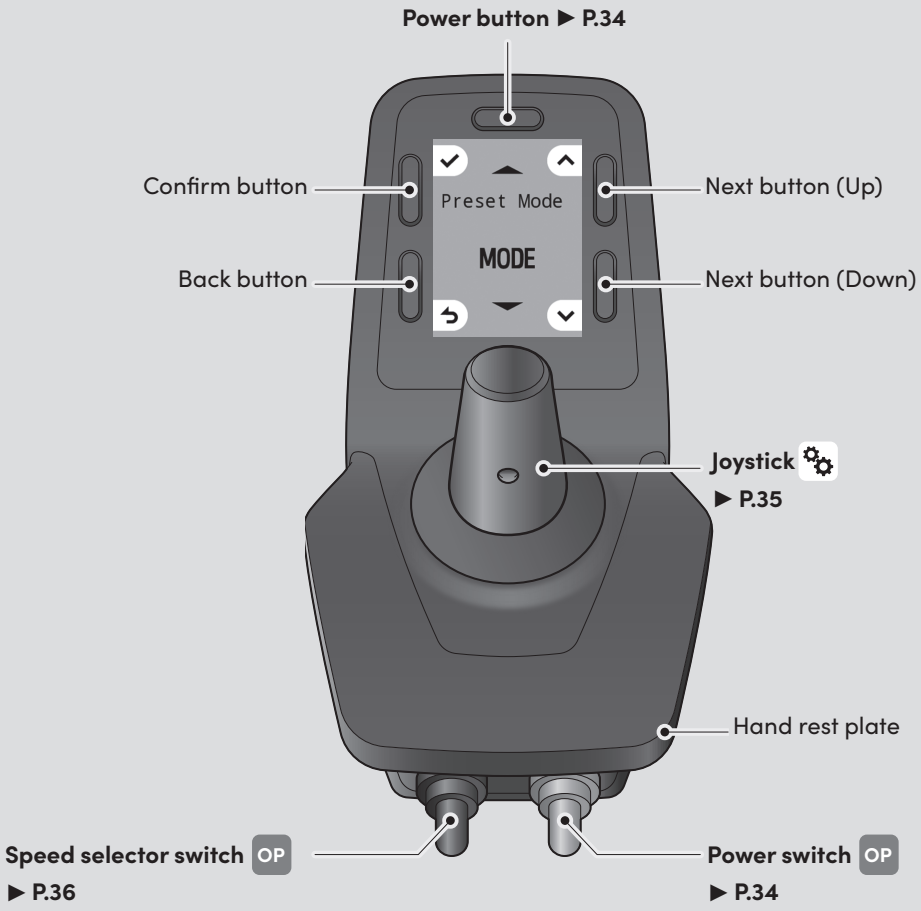
Parts that can be adjusted for position or angle.



*If the wheelchair has a malfunction of any kind, an error code is displayed with a buzzer sound. ► **P.119** "Troubleshooting"

Menu screen

The function of the buttons changes depending on the displayed screen.



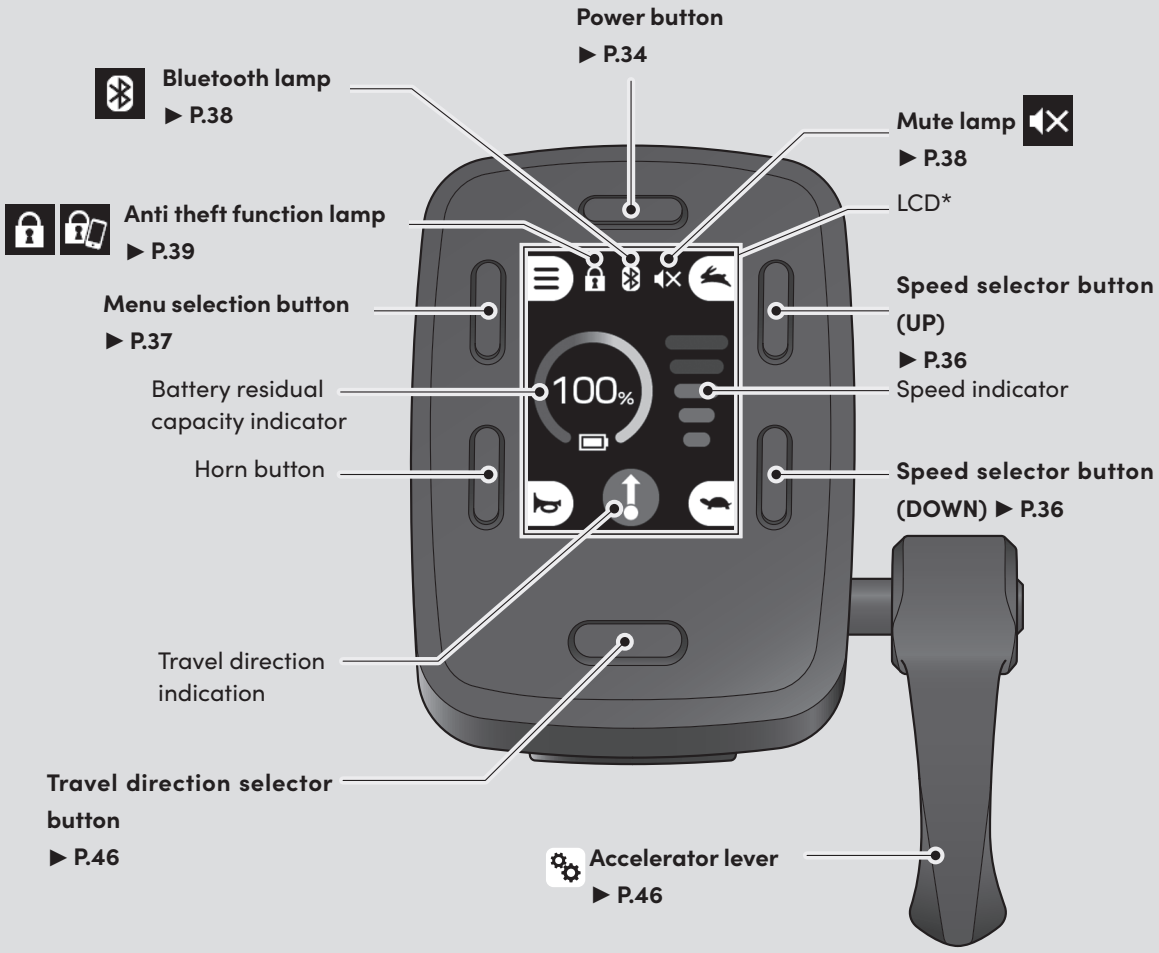
Assistant Controller

This part is sold separately.

Home screen

The function of the buttons changes depending on the displayed screen.

Parts that can be adjusted for position or angle.



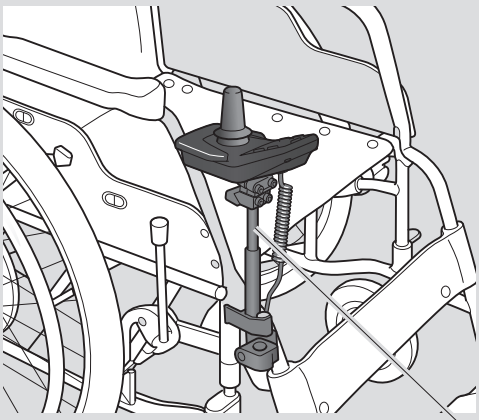
*If the wheelchair has a malfunction of any kind, an error code is displayed with a buzzer sound. ► **P.119** "Troubleshooting"

Menu screen

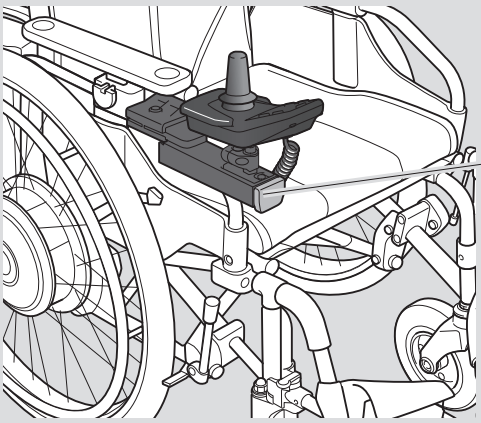
The function of the buttons changes depending on the displayed screen.



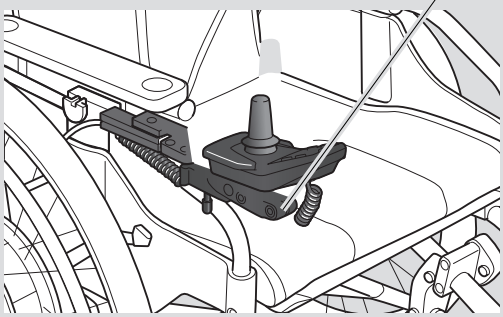
Vertical type controller holder



Paralell arm type controller holder



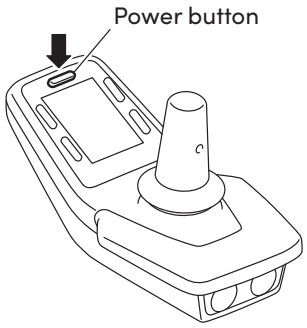
Horizontal type controller holder



Controller holder
► P.41

Power button

Turn on the power button to operate the wheelchair in the power drive mode.

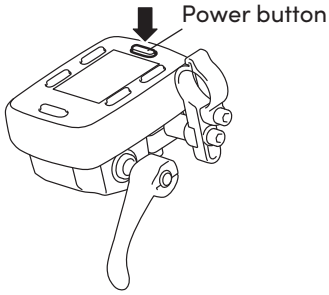


- **Turning on power**

  Press and hold the button (about 2 seconds) to turn on the power and light up the LCD screen. When you hear the “beep” sound, and the LCD screen changes to the home screen, the wheelchair can be operated in the power drive mode.
  When set to mute, no operation sound will be heard when the power is turned on.

- **Turning off power**

  Press the power button again to turn off the power and turn off the LCD screen.



Power switch (controller) (sold separately)

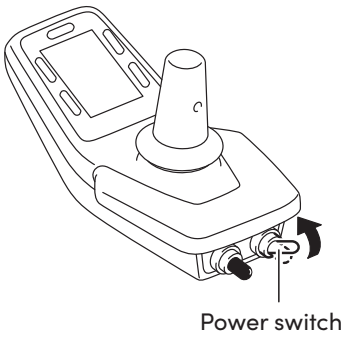
Turn on the power switch to operate the wheelchair in the power drive mode.

- **Turning on power**

  Move the power switch up or down to turn on the controller and light up the LCD screen. When you hear the “beep” sound, and the LCD screen changes to the home screen, the wheelchair can be operated in the power drive mode.
  When set to mute, no operation sound will be heard when the power is turned on.

- **Turning off power**

  Move the power switch up or down to turn off the controller, and turn off the LCD screen.



Joystick (controller)

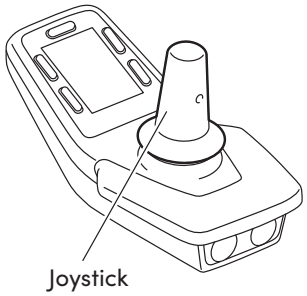
Operate the joystick to operate and drive the wheelchair.

- **Wheelchair operation**

  The wheelchair moves in the direction in which the joystick is tilted, and the wheelchair stops when the joystick is returned to the center position. Tilt the joystick to the desired side to turn the wheelchair.

- **Adjusting the speed**

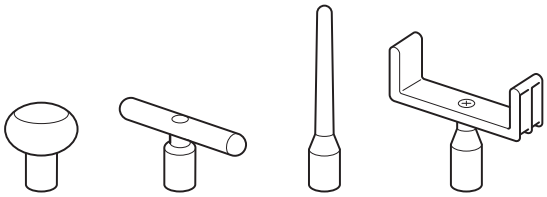
  The speed can be adjusted by tilting the joystick.



Joystick

Replacing joystick

Depending on your physical condition, the joystick can be replaced with various shapes. (sold separately) Consult with your dealer for any replacements.



Ball-shaped | T-shaped | Straight-shaped | U-shaped

Speed selector button

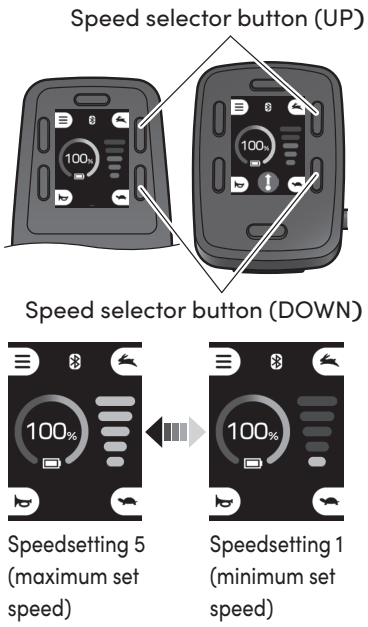
Allows you to switch the maximum speed between five different levels.

- **Increase speed**

  Upon pressing the speed selector button (UP), a “beep” will sound and the speed will increase.

- **Decrease speed**

  Upon pressing the speed selector button (DOWN), a “beep” will sound and the speed will decrease.



Speed selector switch (controller) (sold separately)

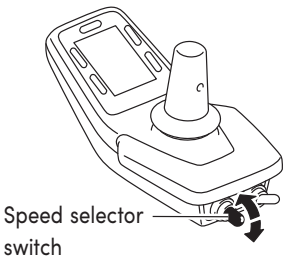
Allows you to switch the maximum speed between five different levels.

- **Increase speed**

  Upon moving the speed selector switch (UP), a “beep” will sound and the speed will increase.

- **Decrease speed**

  Upon moving the speed selector switch (DOWN), a “beep” will sound and the speed will decrease.



USB power port

USB power port Type-C is used. The power output is up to 3A.

TIP

Power output may not be available depending on the equipment.

TIP

The USB power port does not feature any communication functions.

Notice

- **Close the rubber cap when the USB power port is not in use.**
  Rainwater and the like may enter the port, damaging electronic equipment and causing it to malfunction.

- **Do not insert any object other than a USB connector into the USB power port.**
  Otherwise, the USB power port may be damaged.

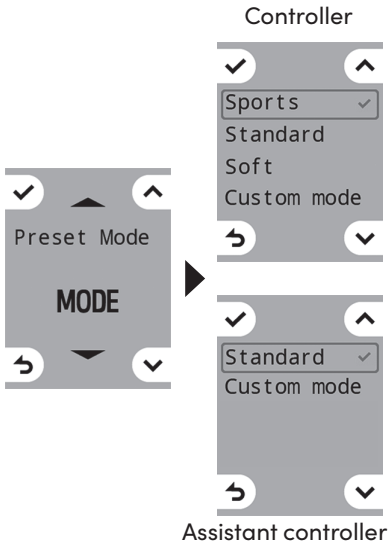
Menu selection

Allows you to check or change various settings from the menu.

Travel adjustment *

Allows you to change the operation to the preferred traveling mode.
Select from the preset mode “Sport/Standard/Soft/Custom” for the controller, and “Standard/Custom” for the assistant controller.
Select the preferred item, and press the “Confirm” button to complete the setting.
“Custom” mode can be set to your preference in “JW Smart Tune”.
► **P.117** “Changing the settings”

***** This feature may not be available on all markets



Notice

- **When changing the preset mode, the maximum speed and acceleration/deceleration will change. Please use with caution.**
  If changing the preset mode causes any issues with operation, stop using that setting and return to the original setting.

LCD brightness

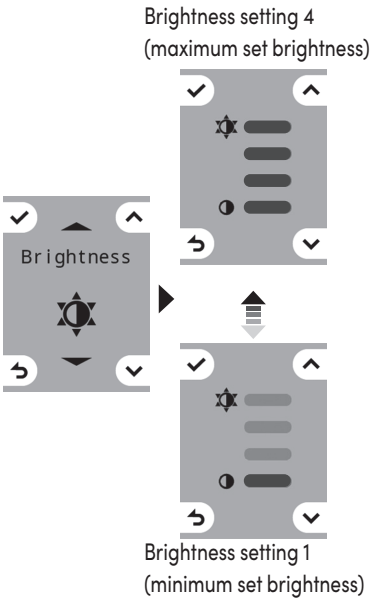
The display brightness can be switched between four different levels.

Increase brightness

Upon pressing the Next button (UP), a “beep” will sound and the brightness will increase.
Select the preferred brightness, and press the “Confirm” button to complete the setting.

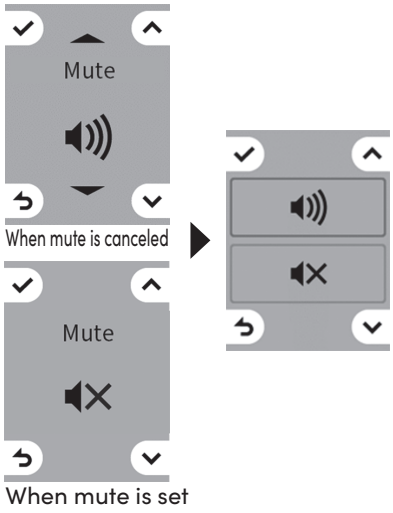
Decrease brightness

Upon pressing the Next button (Down), a “beep” will sound and the brightness will decrease.
Select the preferred brightness, and press the “Confirm” button to complete the setting.



Mute setting

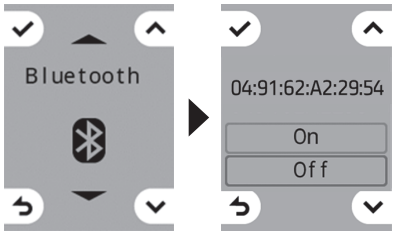
Allows you to set the display operation sound to mute.
Select the preferred item, and press the “Confirm” button to complete the setting.
Setting display operation sound to mute will not turn off the horn and warning sounds.
The icon displayed in the menu is different when mute is set and when unmute is set.



Bluetooth*

Allows you to switch between Bluetooth connection on/off.
Select the preferred item, and press the “Confirm” button to complete the setting.
When “On” is selected, the Bluetooth symbol is displayed on the LCD screen.
Bluetooth connection is used for settings in “JW Smart Tune”.

* This feature may not be available on all markets

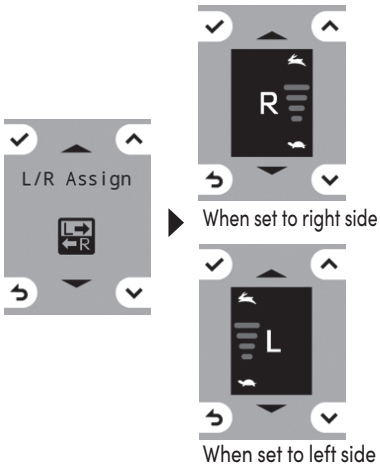


L/R settings

The home screen display and operation buttons on the display can be swapped between left and right.

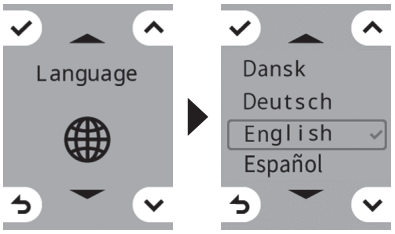
R (right-side setting)
Allows you to arrange the speed settings display on the right side on the home screen.
Select the preferred item, and press the “Confirm” button to complete the setting.

L (left-side setting)
Allows you to arrange the speed settings display on the left side on the home screen.
Select the preferred item, and press the “Confirm” button to complete the setting.



Language settings

Allows you to change the language of the text on the display.
Select the desired language, and press the “Confirm” button to complete the setting.



Anti theft function

This function disables the operation of the joystick or accelerator lever when operated by another person.

How to set the anti theft function

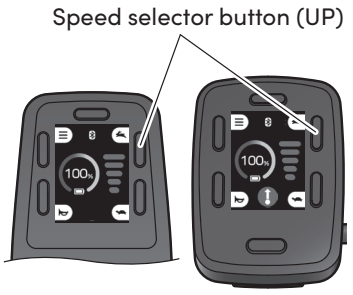
The anti-theft function can be set from either the controller or the assistant controller. Once the settings are performed on one controller, the anti theft function is automatically activated on the other controller.

1. Turn on the power and increase the speed setting up to 5.

2. Release the button once and then press and hold the speed selector button (UP) for at least 5 seconds.

   TIP

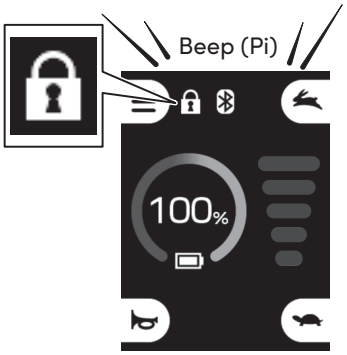
   If any other input is made while the speed selector button (UP) is being held down, press and hold the speed selector button (UP) again.



3 After the “beep” sound and the anti theft function light illuminates on the LCD, the setting is complete.
Once the setting is complete, the “Speed Setting Display” is set to 0.

TIP

If the power is turned back on after the setting is completed, the anti theft function will remain set.



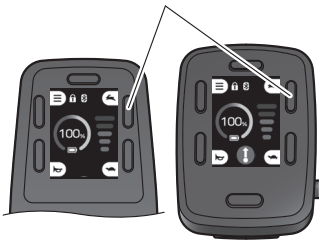
How to release the anti theft function

1 While the anti theft function is set, press and hold the speed selector button (UP) for at least 5 seconds.

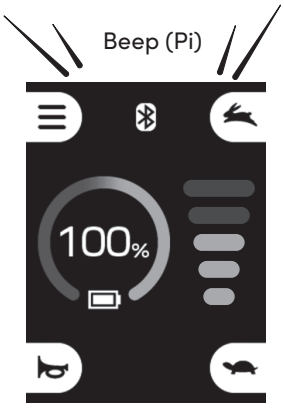
TIP

If any other input is made while the speed selector button (UP) is being held down, press and hold the speed selector button (UP) again.

Speed selector button (UP)



2 Once the “beep” operating sound is heard and the anti theft function lamp on the LCD is turned off, the setting is canceled.



Controller holder

Handling of the controller holders vary depending on the holder type.

Vertical holder: Vertical
Parallel holder: Parallel
Horizontal holder: Horizontal

◖ **Adjusting the position of the controller**

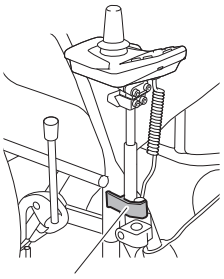
The controller position can be adjusted to a position or angle that is easy to operate for you.

◖ **Retracting the controller**

The controller can be retracted if it becomes an obstruction when moving close to a table or desk.

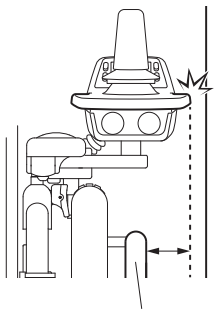
⚠ WARNING

- **Do not remove the controller from the under holder with the power on.**
  The joystick may tilt, causing the wheelchair to move unexpectedly, resulting in injury to you or other people in your surrounding area.
- **Do not turn on the power after removing the controller from the under holder.**
  The joystick may tilt, causing the wheelchair to move unexpectedly, resulting in injury to you or other people in your surrounding area.
- **Never travel in the power drive mode with the controller removed from the under holder.**
  You may not be able to operate the wheelchair properly, resulting in injury to you or other people around you.
- **Do not remove the controller from the under holder while traveling.**
  You may not be able to operate the wheelchair properly, resulting in injury to you or other people around you.



Under holder

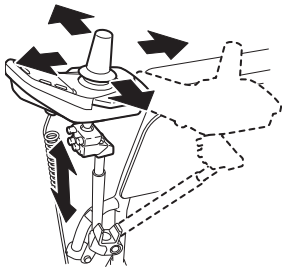
- **Check the controller to ensure that it is firmly secured to the wheelchair before traveling.**
  You may not be able to control the wheelchair properly if the controller is not firmly secured, resulting in injury to you or other people around you.
- **If the controller is adjusted outside the hand-rim, pay attention to surrounding people and walls.**
  Contact of the controller with other people or obstacles may result in injury or damage.



Hand-rims

Adjusting the position of the controller

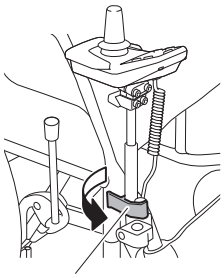
The position and height of the controller can be adjusted. Consult with your dealer if you wish to make any adjustments.



How to retract/pull out

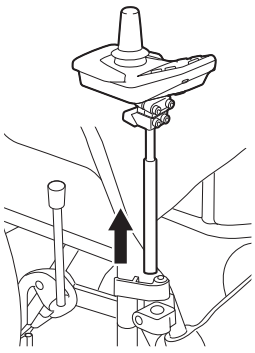
1 Confirm that the power is turned off.

2 Remove the lock lever.

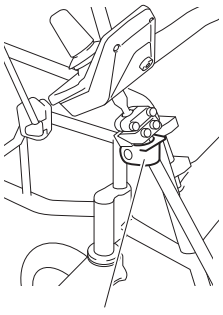


Lock lever

3 Pull out the controller.



4 Insert the controller into the lower holder.



Lower holder

5 To return the controller to its original position, reverse the procedure.

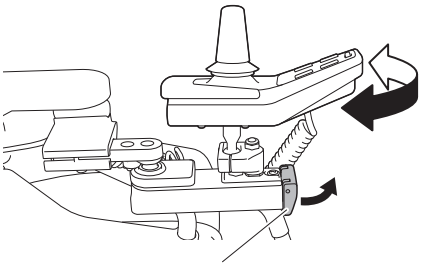
Adjusting the position of the controller

Adjusting the horizontal position

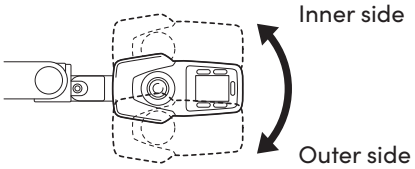
The position of the controller can be adjusted horizontal to the arm support in three positions; inner, center, and outer side.

1 Confirm that the power is turned off.

2 Adjust the position of the controller to the desired position while pulling up the lock lever.



3 Once you release the lock lever, the controller position is fixed where the lock position is matched.



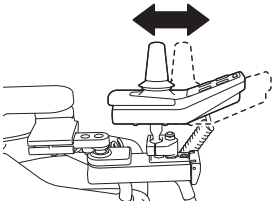
TIP

Depending on the height of the arm support and the mounting condition of the controller, it may be difficult to fix it on the inner side.

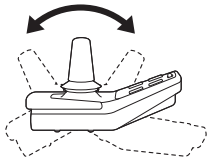
Adjusting forward/backward position, angle, and direction

Consult with your dealer if you wish to make any adjustments.

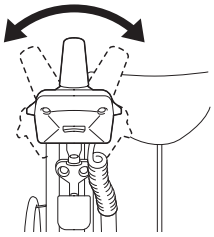
- Forward/ backward position



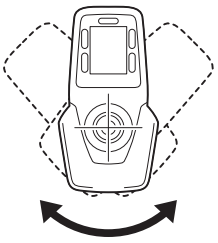
- Front-back angle



- Left-right angle



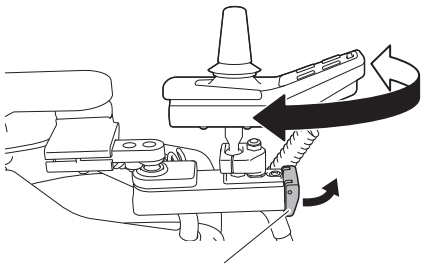
- Direction



How to retract

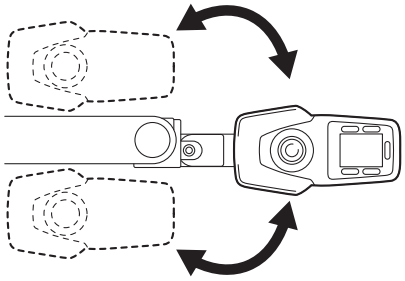
1 Confirm that the power is turned off.

2 Move the controller while pulling up the lock lever.



Lock lever

3 The moving range of the controller is wider than the range of the fixed position.



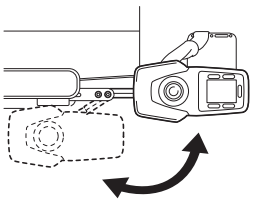
TIP

In the retracted position, the controller is not fixed.

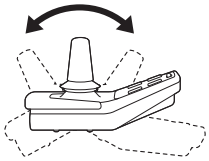
Adjusting the position of the controller

- Adjusting the position, angle and direction
  Consult with your dealer on this adjustment.

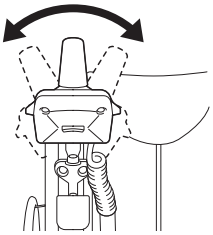
- Position



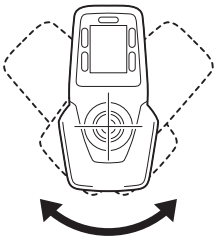
- Front-back angle



- Left-right angle



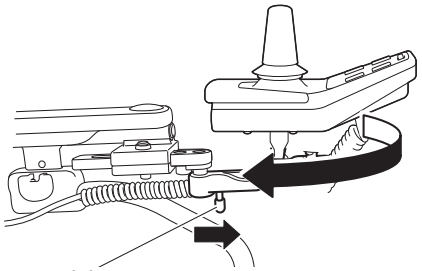
- Direction



How to retract

1 Confirm that the power is turned off.

2 Turn the controller while the lock lever of the holder is pushed forward.

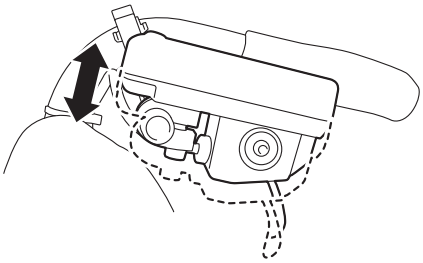


3 To return the controller to its original position, reverse the procedure.
Make sure that the controller is locked in position.

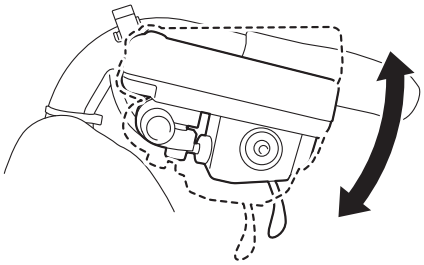
Adjusting the position of the assistant controller (sold separately)

The left/right position, height, and angle of the assistant controller can be adjusted. Consult with your dealer if you wish to make any adjustments.

- Height



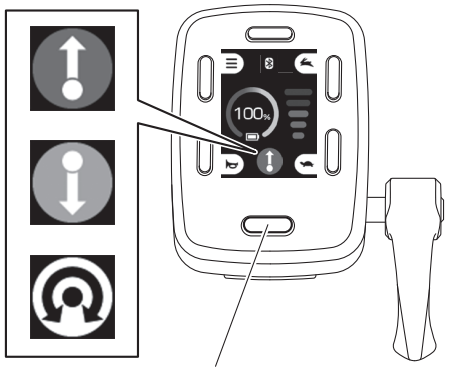
- Angle



Travel direction selector button (assistant controller) (sold separately)

When operating the wheelchair using the assistant controller, the travel direction can be changed by pressing the direction selector button.
The travel direction can be selected from three patterns: forward, backward, and turn.

Forward/backward	Press the direction selector button to switch between forward and backward travel direction.
Turns	Press and hold the travel direction selector button to switch to turn.



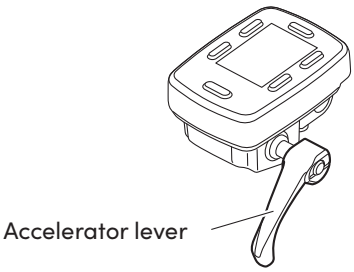
Travel direction selector button

Adjusting the accelerator lever (assistant controller) (sold separately)

Adjust the accelerator lever to operate the wheelchair.

◖ Adjusting the speed

The speed can be increased or decreased depending on how strongly the assistant grips the accelerator lever.



Accelerator lever

3 Inspecting Various Parts of Electric Power Unit

⚠ WARNING

- **Perform the daily checks before use every day. Make a habit out of inspecting the wheelchair.**
  Continued use of the wheelchair with a problem in the wheelchair body or the wheels may cause damage to the wheelchair while traveling, and may result in a rollover or fall.

This chapter explains the parts that need a daily check to ensure safe use of this product.
For inspection of a wheelchair equipped with this product, refer to the instruction manual of the wheelchair.

E-Drive NXT (20–26 inch)

Inspection Locations (8 items)

OP | This part is sold separately.

Rear tires ▶ P.51

- ☐ Wear and cracks on tire surface
- ☐ Air pressure

Hand-rims ▶ P.54

- ☐ Deformation, scratches
- ☐ Rattling

Wheels, spokes ▶ P.53

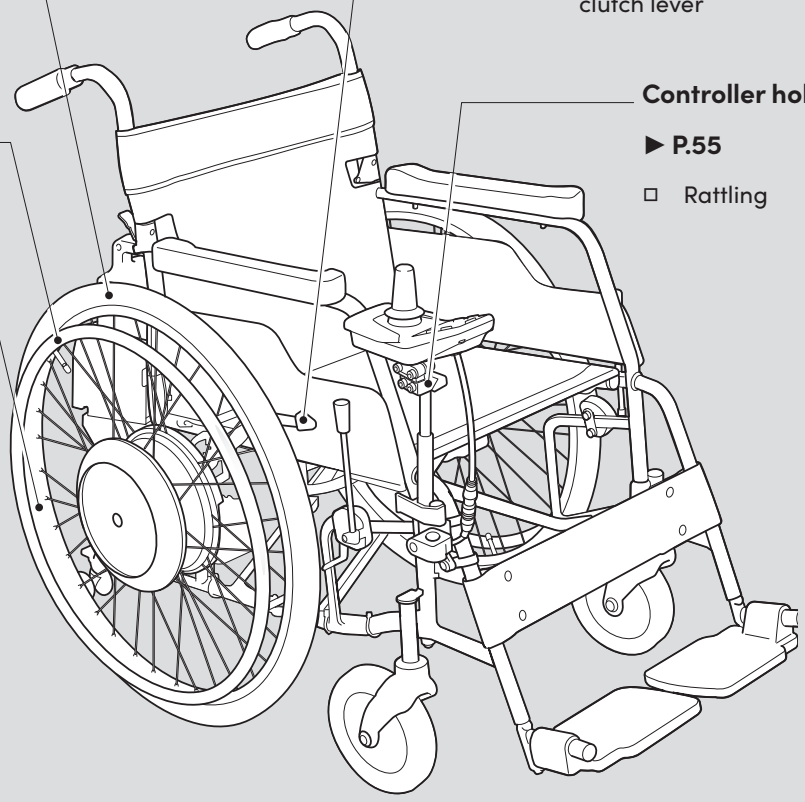
- ☐ Deformation, scratches
- ☐ Rattling
- ☐ Spoke breakage
- ☐ Mounting condition of the wheel cap

Clutch lever ▶ P. 54

- ☐ Normal switching
- ☐ Mounting condition of the clutch lever

Controller holder ▶ P.55

- ☐ Rattling

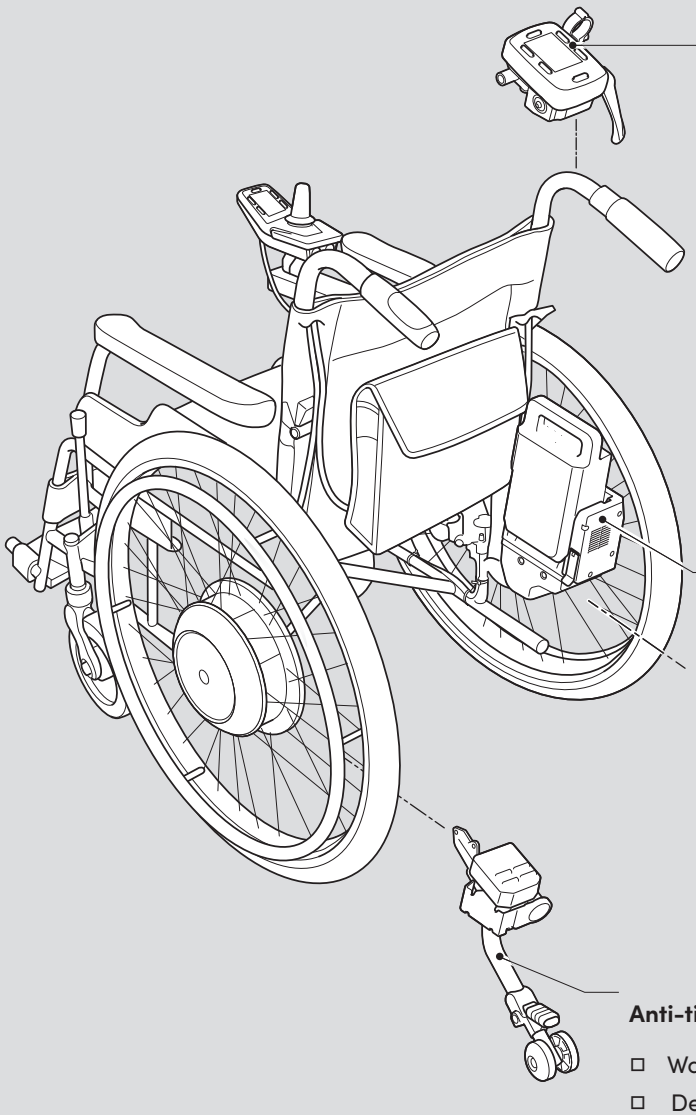


Notice

- **If you detect any problem that you cannot resolve on your own (if you are unable to resolve the malfunctioning using the "troubleshooting"), stop using the wheelchair and consult your dealership.**
  Continuing to use the wheelchair in such a state may cause damage to the electric power unit or the wheelchair to stop while traveling.

⚠ WARNING

- **Do not use the wheelchair with damaged rear tires.**
  Continued use in such conditions may cause the wheelchair to breakdown during travel, resulting in you losing balance and tip over.



Assistant controller OP

► P.56

- ☐ Rattling

Battery

► P.56

- ☐ Battery residual capacity
- ☐ Loose belt

in detachable battery bag only

Anti-tip bar OP **► P.51**

- ☐ Wobble
- ☐ Deformation, scratches

3

E-Drive NXT (16 inch)

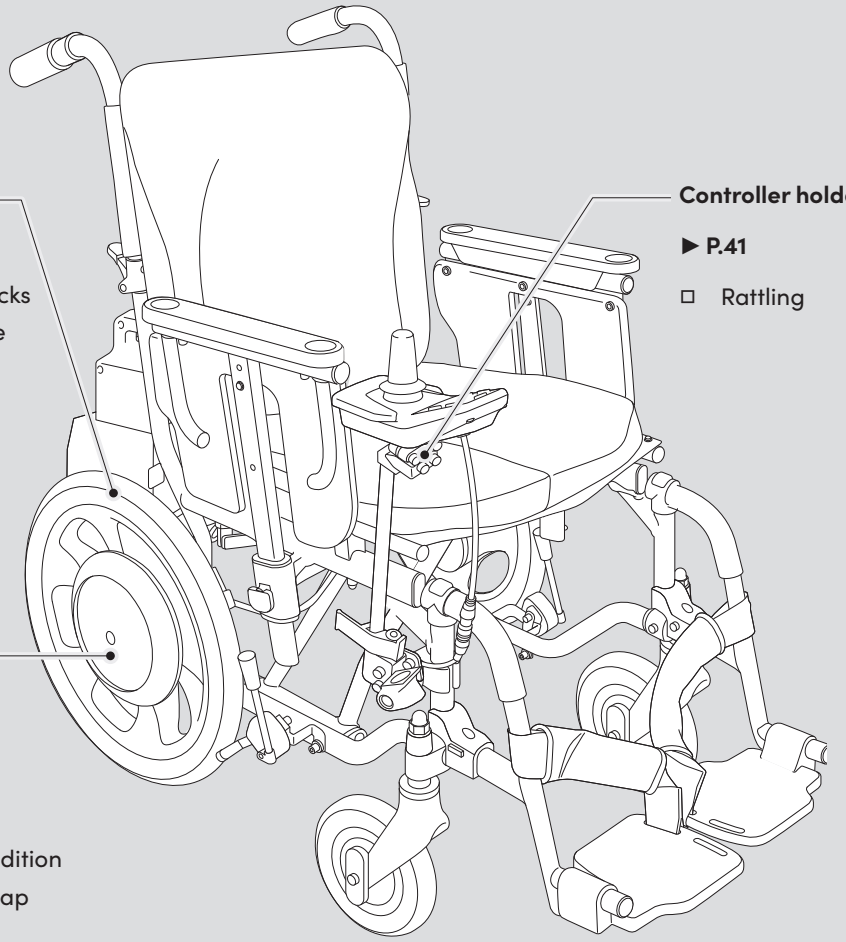
Inspection Locations (7 items)

Notice

- **If you detect any problem that you cannot resolve on your own (if you are unable to resolve the malfunctioning using the "troubleshooting"), stop using the wheelchair and consult your dealership.**

  Continuing to use the wheelchair in such a state may cause damage to the electric power unit or the wheelchair to stop while traveling.

OP | This part is sold separately.



Rear tires

► P.52

- ☐ Wear and cracks on tire surface

Wheels

► P.53

- ☐ Deformation, scratches
- ☐ Rattling
- ☐ Mounting condition of the wheel cap

Controller holder

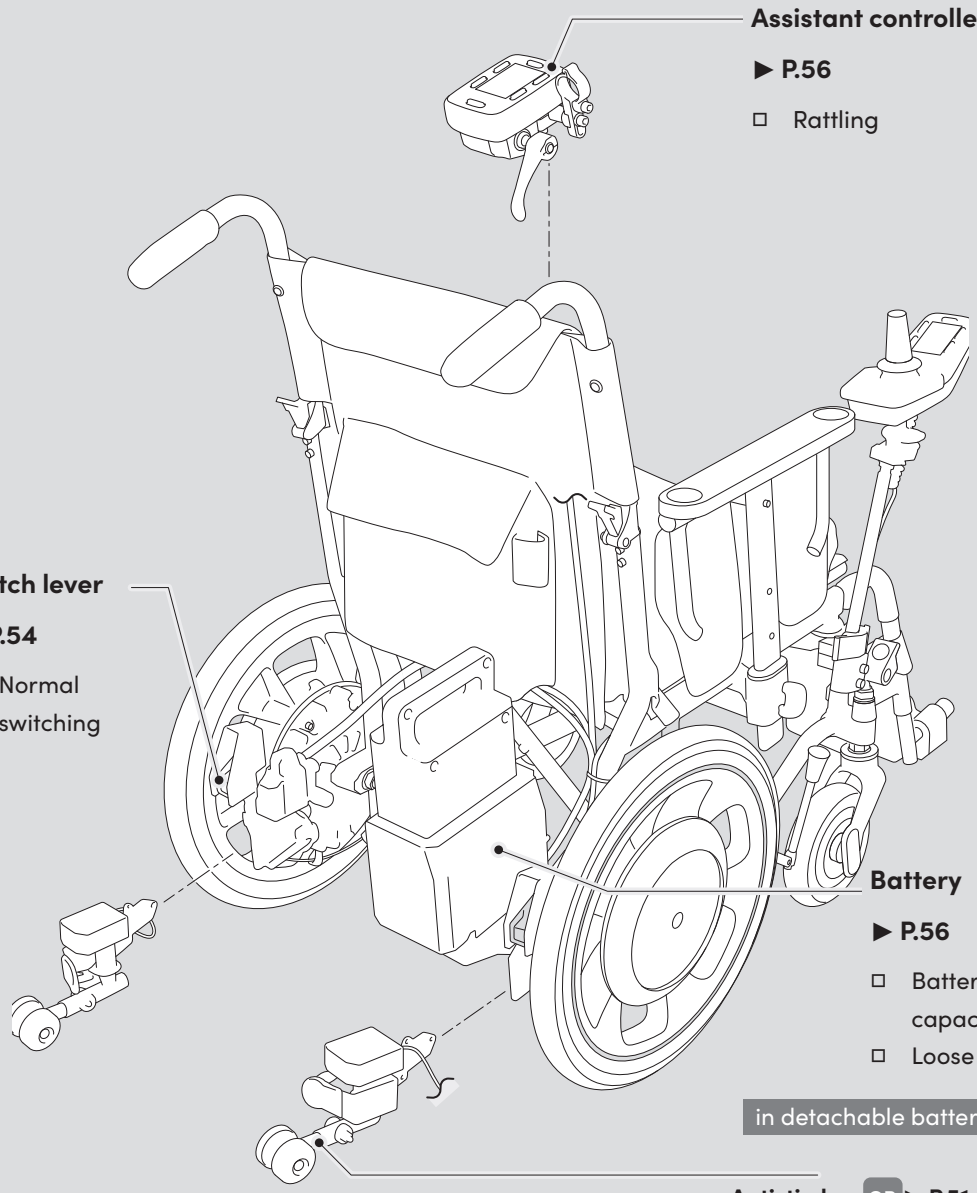
► P.41

- ☐ Rattling

⚠ WARNING

- **Do not use the wheelchair if there is an abnormality in the wheelchair, or the rear tires.**

  Continued use in such conditions may cause the wheelchair to breakdown during travel, resulting in you losing balance and tip over.



Assistant controller OP

► P.56

- ☐ Rattling

Clutch lever

► P.54

- ☐ Normal switching

Battery

► P.56

- ☐ Battery residual capacity
- ☐ Loose belt

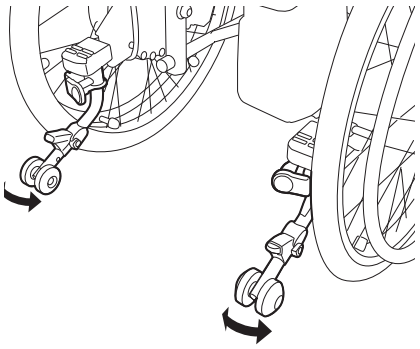
in detachable battery bag only

Anti-tip bar OP **► P.51**

- ☐ Wobble
- ☐ Deformation, scratches

Anti-tip device (sold separately)

This part is sold separately.



- **Wobble**

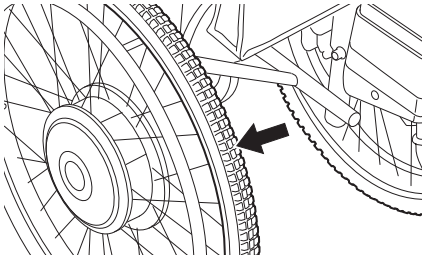
  While the anti-tip device is extended, move it back and forth to ensure that it is locked in position and is not wobbly.
  If the anti-tip device is not locked, move it back and forth. Once the anti-tip device is locked in position, you will hear a click confirming that the lock is engaged.

- **Deformation, scratches**

  Confirm that the anti-tip device does not have deformation or damage.

Rear tires (E-Drive NXT (20-26 inch))

Appropriate air pressure varies depending on the tire size.



- **Wear and cracks on tire surface**

  Check to ensure that there is tire depth.
  Check the surface of the tire to ensure that there are no cracks.

- **Air pressure**

  Check to ensure that there is air in the tire by pressing the tire with your finger.
  If there is not enough air, pump air with an air pump.

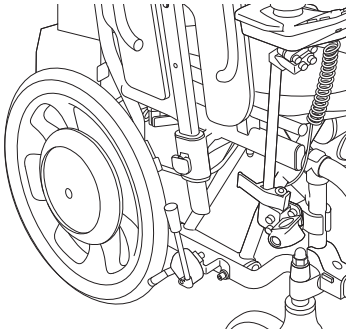
TIP

Appropriate air pressure for rear tires, see "8 Dimensions and Specifications"

⚠ WARNING

- **Check the air pressure in the rear tires and adjust as needed.**
  If the air pressure in the rear tire decreases, the parking brakes may not work properly.

Rear tires (E-Drive NXT (16 inch))



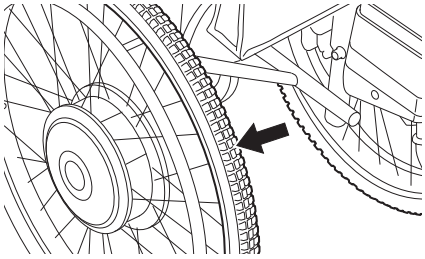
◖ **Wear and cracks on tire surface**

Check to ensure that there is tire depth.
Check the surface of the tire to ensure that there are no cracks.

Puncture proof tires (sold separately)

This part is sold separately.

◖ **Wear and cracks on tire surface**



Check to ensure that there is tire depth.
Check the surface of the tire to ensure that there are no cracks.

TIP

Replace the self-sealing tires every three years.
Consult with your dealer for replacement.

⚠ WARNING

● **Check the wear and tear on the self-sealing tires, and if the tire depth is not sufficient, consult the dealer.**

If the self-sealing tires are worn out, they can become slippery and the parking brakes may not work properly.

Wheels, spokes (E-Drive NXT (20-26 inch))

- **Deformation, scratches**

  Check the wheels to ensure that they are not deformed or damaged.

- **Rattling**

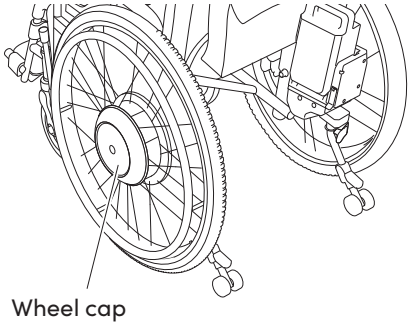
  Check the wheels to ensure that the wheels do not rattle.

- **Broken spokes**

  Check the spokes to ensure that they are not broken.

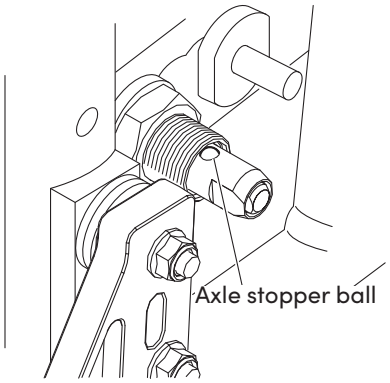
- **Mounting condition of the wheel cap**

  Make sure that the wheel caps are not loose or detached.



- **Wheels**

  In case of the detachable units, make sure that the axle stopper balls are visible and that the axle shafts are securely locked so that the units will not come off.



Wheels (E-Drive NXT (16 inch))

- **Deformation, scratches**

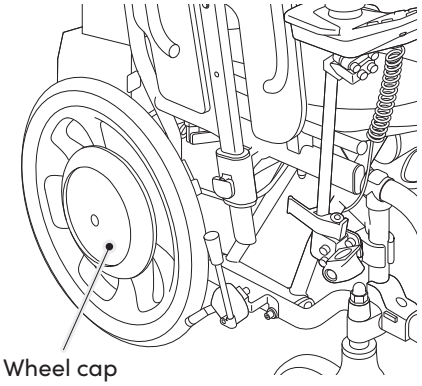
  Check the wheels to ensure that they are not deformed or damaged.

- **Rattling**

  Check the wheels to ensure that the wheels do not rattle.

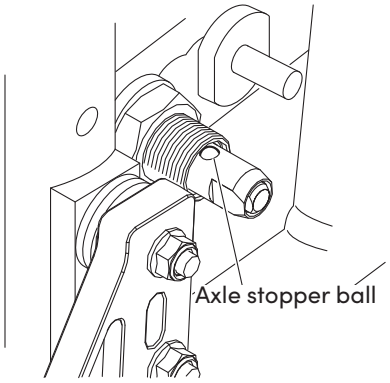
- **Mounting condition of the wheel cap**

  Make sure that the wheel caps are not loose or detached.



- **Wheels**

  In case of the detachable units, make sure that the axle stopper balls are visible and that the axle shafts are securely locked so that the units will not come off.



Hand-rims (E-Drive NXT (20-26 inch))

- **Deformation, scratches**

  Check that the hand-rims are not deformed or damaged.

- **Rattling**

  Check that the hand-rims do not rattle.

Clutch levers

- **Normal switchover**

  Operate the clutch levers to check if there is normal switching between the power drive/manual drive positions.

- **Mounting position of the clutch levers (E-Drive NXT (20-26 inch))**

  Check that there is no interference between the clutch levers and the frame (parking brakes, side guards, etc.) and if the clutch levers can operate smoothly.

Controller holder

The inspection method varies depending on the holder type.

Vertical holder: Vertical

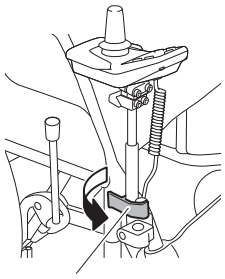
Parallel holder: Parallel

Horizontal holder: Horizontal

Vertical

- **Rattling**

  Move the controller back and forth to ensure that the holder is firmly and properly secured to the wheelchair.
  Hold and pull up the controller, then check that it is securely locked with the lock lever.
  If not locked properly, remove and reinsert the controller, and use the lock lever to lock it.

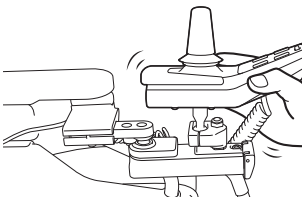


Lock lever

Parallel and Horizontal

- **Rattling**

  Move the controller back and forth to ensure that the holder is firmly and properly secured to the wheelchair.



Battery

⚠ WARNING

- **Check the residual capacity of the battery.**
  If the residual capacity of the battery is low, the battery may run out during operation and it may become impossible to travel in power drive mode.

- **Make sure that the fixing belt of the battery bag is not loose.**
  If the fixing belt is loose, the battery bag may fall off, or the loose fixing belt might get coiled around the rear tire or other movable parts, possibly causing an accident.

Carry out the following inspection when using a wheelchair with detachable battery bag.

◖ **Loose belt**

Make sure that the fixing belt of the detachable battery bag is not loose. Moreover, make sure that the fixing belt does not interfere with the anti-tip bar, rear tires, or other movable parts.
If the belt is loose,tighten the belt after making sure that it does not interfere with any movable parts.

Assistant controller (sold separately)

This part is sold separately.

◖ **Rattling**

Move the assistant controller back and forth to ensure that the holder is firmly and properly secured to the wheelchair.

4 Riding the Wheelchair

This chapter describes steps required to get into and operate a wheelchair equipped with this product. Please read this manual carefully in conjunction with the instruction manual for the electric wheelchair equipped with this product.

⚠ WARNING

- **When switching the clutch levers to the manual drive position or push position, park on a flat surface, apply the parking brake, and turn off the power switch.**

  The wheelchair may start moving unexpectedly, resulting in injury to you or other people around you.

- **Do not switch the clutch levers to the manual drive position or push position in areas with an incline.**

  The wheelchair may start moving unexpectedly, and may collide or tip over.
  This may result in injury to you and others around you.

- **Do not operate the clutch levers while the wheelchair is in motion.**

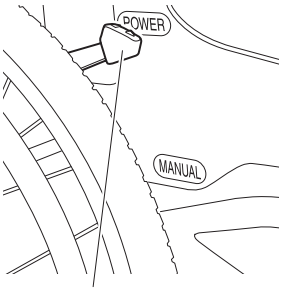
  There is a risk of collision or tipping over.
  This may result in injury to you and others around you.

- **Do not switch the clutch levers to the manual drive position or push position while traveling in power drive position.**

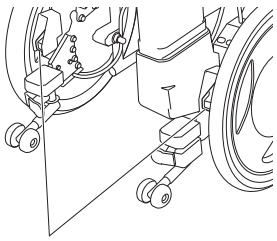
  Doing so, the motor brake may loses its effect. Especially on slopes, the wheelchair may go out of control.
  This may result in injury to you and others around you.

- **Do not switch the clutch levers to the power drive position while traveling in the manual drive position.**

  If done so, the brakes are applied to the rear tires. This abrupt braking may cause your body to plunge forward by the reaction, causing injury to your or other people around you, or damage the wheelchair.



Clutch levers


Clutch levers

Preparing to Get in/out of Wheelchair

Ensure that the wheelchair is firmly in a stable position, and is not moving.
Before traveling in the power drive mode, make sure that the battery is fully charged. For checking the battery charge level and how to install the battery, refer to the instructions on battery handling. ► **P.83** "Handling the batteries, chargers"

⚠ WARNING

- **When getting in/out of the wheelchair, keep the following in mind.**

  The wheelchair may start moving unexpectedly, resulting in you falling from the wheelchair and injure yourself.
  - Turn off the power.
  - Set the clutch levers in the power drive position.
  - Apply the parking brakes.

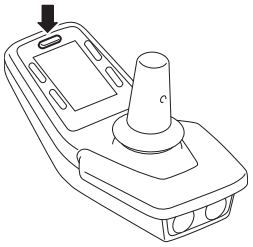
- **Always turn off the power before getting in/out of the wheelchair.**

  If the power is turned on and your body hits the joystick, the wheelchair may move unexpectedly, and you or other people in your surrounding area may get injured.

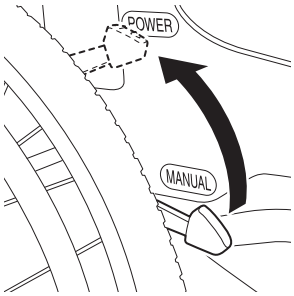
How to stop the wheelchair

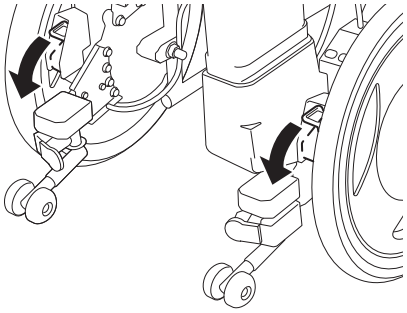
1 Keep the wheelchair on a leveled and flat location.

2 Turn off the power to the controller.

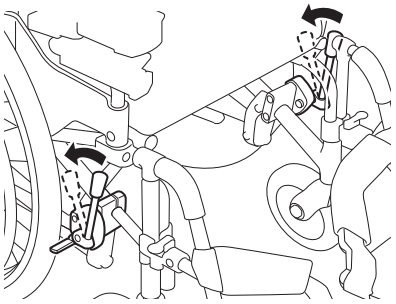


3 Set the clutch levers in the power drive position.

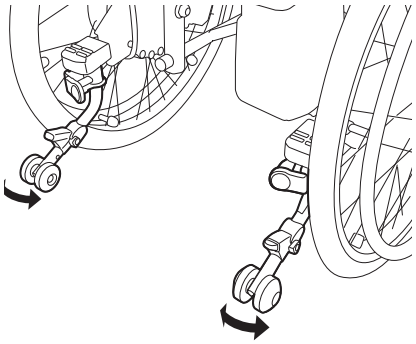




4 Apply the parking brakes.



5 Move the anti-tip bar back and forth while it is extended to ensure that it is locked in position.
(sold separately, provided you have the equipment)

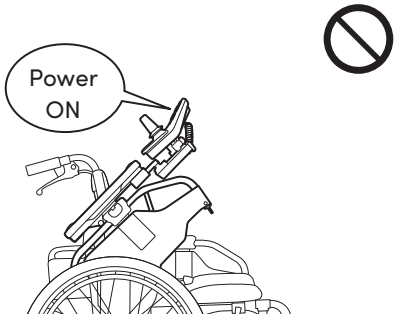


Getting in/out of Wheelchair

⚠ WARNING

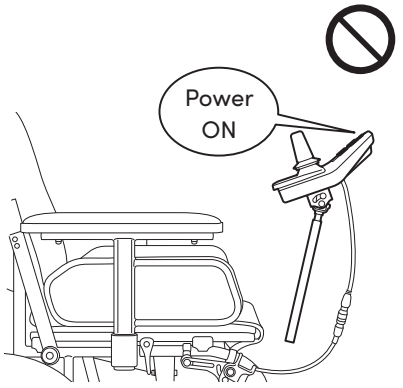
- **When the controller is attached to the tilt-up arm support of the wheelchair, observe the following.**
  - **Do not raise the arm support after turning on the power.**
  - **Do not turn on the power while the arm support is raised.**
  - **Never operate the wheelchair with the arm support raised.**

  The joystick may tilt, causing the wheelchair to move unexpectedly, resulting in injury to you or other people in your surrounding area.



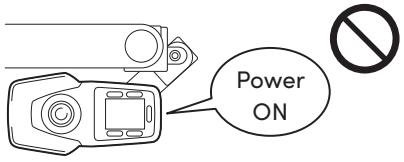
- **For wheelchairs that use vertical holder to mount the controller, observe the following.**
  - **Do not remove the controller from the under holder while the power is turned on.**
  - **Do not turn on the power after removing the controller from the under holder.**
  - **Never travel in the wheelchair with the controller removed from the under holder.**

  The joystick may tilt, causing the wheelchair to move unexpectedly, resulting in injury to you or other people in your surrounding area.



- **For wheelchairs that use parallel or horizontal holder to mount the controller, observe the following.**
  - **Do not retract the controller while the power is turned on.**
  - **Do not turn on the power after retracting the controller.**
  - **Never travel in the wheelchair with the controller retracted.**

  The joystick may tilt, causing the wheelchair to move unexpectedly, resulting in injury to you or other people in your surrounding area.



Securing clearance

1 Flip up the foot supports.

2 The following movable parts can be moved as needed to facilitate easy getting into/off the wheelchair.
- Move the controller ► **P.41** "Controller holder"

Sitting in the wheelchair

1 Get into the wheelchair and firmly sit down so that you are sitting in a stable position.

2 Lower the foot supports and place your feet firmly on them.

3 If you move any other movable parts, ensure that those parts are returned to their original position and are firmly secured.

Check Before Riding the Wheelchair

⚠ WARNING

- **Check the controller to ensure that it is firmly secured to the wheelchair before traveling.**
  You may not be able to control the wheelchair properly if the controller is not firmly secured, resulting in injury to you or other people around you.

Before turning on the power to the controller

- **Clothes getting caught in the wheelchair**

  Do not ride with clothing such as pants or skirts with wide hems and lap blankets that may get caught in any part of the wheelchair.

- **Joystick**

  Does the joystick move smoothly without getting stuck while the power is turned off? Does it return to the center when you let go?

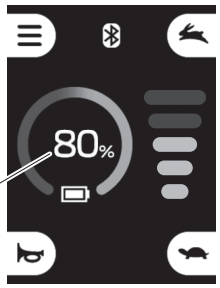
Checking controller operation

Turn on the power to the controller while the parking brakes are applied.

- **Home screen**

  When you turn on the power, you will hear the beep sound "Pi". The battery residual capacity is indicated in numerals.

Battery residual capacity indicator



◖ **If this LCD indication appears**

LCD Indication	What to do
	The power switch was turned on while the joystick lever was tilted. Turn off the power switch, release the joystick, and then turn the power back on.
	(1) The wheelchair is locked due to this operation. Disable the anti theft function. ► **P.39** "Anti theft function" (2) The wheelchair is locked due to the operation of the application. Disable the anti theft function. ► **P.117** "Changing the settings"

If any other indication appears and the issue is not resolved, check in accordance with "Troubleshooting". ► **P.119** "Troubleshooting"

Riding the Wheelchair

If there are no problems in the inspection before getting into the wheelchair, release the parking brakes and begin riding the wheelchair.

⚠ WARNING

- **When the buzzer beeps to indicate the low battery residual capacity warning, promptly move to a safe place.**

  A situation where you cannot move, such as when crossing a road may result in an accident. Move to a safe place and then replace the battery with a spare one (sold separately) or charge the battery.

- **Do not ride the wheelchair while a USB device is connected to the USB power port.**

  Otherwise, the USB power port may be subjected to force and the controller may be damaged if the wheelchair bumps into an object.
  A cable connected to the USB device may get coiled around the joystick, the clutch lever, or a rear tire, possibly causing an accident.

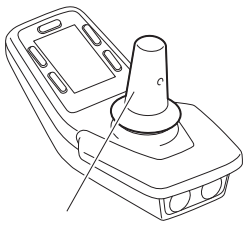
Notice

- **If you detect any problem that you cannot resolve on your own (if you are unable to resolve the malfunctioning using the "troubleshooting"), stop using the wheelchair and consult your dealership.**

  Continuing to use the wheelchair in such a state may cause damage to the electric power unit or the wheelchair to stop while traveling.

Operating the joystick

First, slightly move the joystick back and forth and sideways to ensure that the wheelchair moves as operated.



Joystick

◖ Forward, backward, and turn

Tilt the joystick forward to move forward, and tilt it towards you to move backward.
Tilt the joystick diagonally to move forward or backward while turning left or right.

◖ Turns

Tilt the joystick to either side to turn the wheelchair to that side.

◖ Adjusting the speed

The speed can be adjusted by tilting the joystick.

◖ Slowing down and stop

Return the joystick to the center position to slow down and stop the wheelchair.
While the joystick is in the center position, the brakes will remain applied.

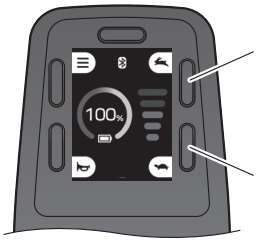
TIP

The speed, as well as joystick sensitivity can be adjusted.
► **P.117** "Changing the settings"

Setting the maximum speed

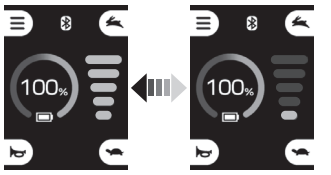
You can check the current maximum speed setting (speed when the joystick is fully tilted) on the LCD screen of the controller.

Speed Selector Button



- **Setting the speed**

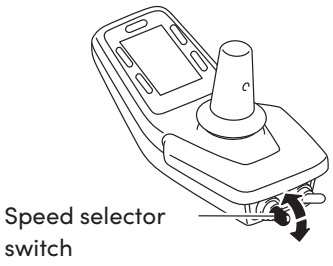
  Press the speed selector button (UP) to increase the speed, and press the speed selector button (DOWN) to decrease the speed.



Speed selector switch (sold separately)

- **Setting the speed**

  Turn up the speed selector switch (UP) to increase the set speed, and turn down the speed selector switch (DOWN) to decrease the set speed.



Confirming the battery residual capacity

You can check the battery residual capacity on the LCD screen of the controller.

- **Battery residual capacity indicator**

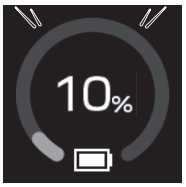
  The battery residual capacity is indicated in increments of 5%, from 100% to 5%.



- **Battery residual capacity warning**

  10%... The buzzer beeps “Pi Pi Pi Pi” (4 times)
  5%... The buzzer beeps “Pi Pi Pi Pi” (4 times)
  1%... The buzzer continues to beep “Pi -Pi -”.

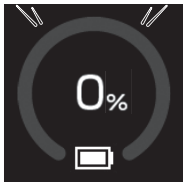
Pi Pi Pi Pi



◖ **Battery run out**

When the battery residual capacity runs out, a long beep "Pi –" will sound and the wheelchair will stop.

Long beep (Pi –)



Auto power off function

If the joystick is not operated for 10 minutes while the power is turned, the power turns off automatically and the further operation cannot be performed.
If the power turns off, turn it back on.

TIP

Activation of the auto power off function can be delayed for 60 minutes, or can be disabled completely.
► **P.117** "Changing the settings"

Practice Riding the Wheelchair

When using the wheelchair equipped with this product for the first time, practice the basic operations on a open, level ground.
Be sure to have an assistant accompany you, and pay sufficient attention to safety.

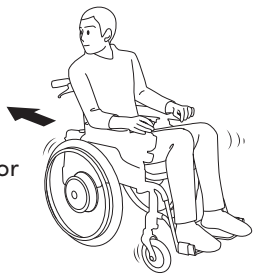
Basic Operations

(1) First, set the maximum speed to slow speed and learn how to use the joystick.
- Tilt the joystick in the direction you want to go.
- Move the joystick slowly.

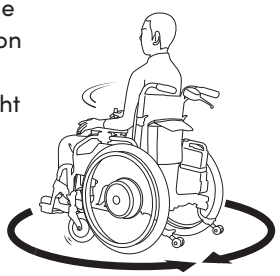
(2) With the maximum speed set to slow speed, learn the feel of joystick operation.
- To go slowly, tilt the joystick slightly.
- To go fast, tilt the joystick further.
- To slow down and stop, move the joystick back to the center.

(3) Try moving in the following manners.

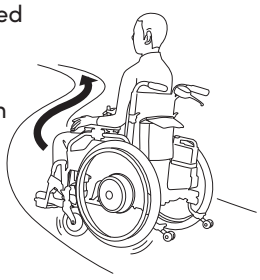
■ Backwards
- Familiarize yourself with the handling and performance characteristics of backward travel.
- Check behind you for safety.



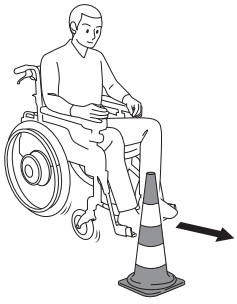
■ Turns
- Tilt the joystick to the side to make turns on a single spot.
- Practice turning right and left.



■ S-shaped curves
- Learn the feel of speed and timing when making turns.
- Practice until you can travel in the desired direction.



■ Avoid obstructions
- Practice avoiding obstructions.
- Stop before reaching the obstruction.



(4) Increase the maximum speed gradually, and practice in the same way.

⚠ WARNING

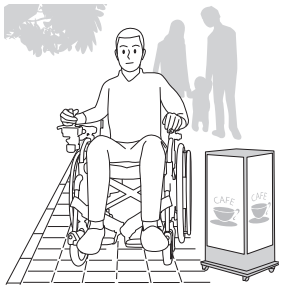
● **If an assistant is accompanying you, use caution to prevent colliding into him or her when moving backward.**

Not observing caution may cause an injury to your assistant.

Once you are familiar with its operation, practice safe riding of the wheelchair in an actual location where you intend using it.
Be sure to have an assistant accompany you, and pay sufficient attention to safety.
Check the frequently used areas for significant dips or curbs, steep slopes, or rough roads, and try to travel on a route that does not pass through such dangerous locations.

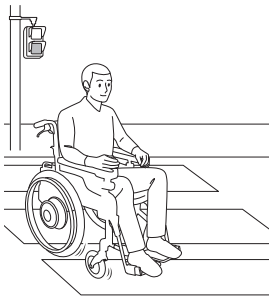
Practice Riding the Wheelchair

(1) Sidewalk
- Adjust your operation to suit the road surface conditions.
- Be careful not to bump into pedestrians and obstructions.

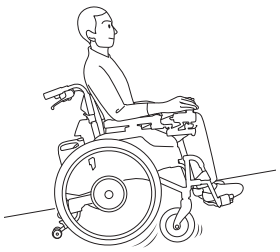


(2) Going up and down a curb
- Check the manual for the wheelchair equipped with this product, and make sure the height of the curb is within the acceptable range.
- Turn the wheelchair so that it can go over the curb at right angles.
- Stop your wheelchair before approaching a curb, and then proceed carefully.
- Another way to get over low curb is to climb backwards.

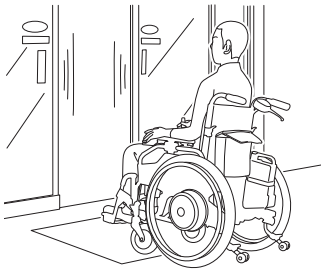
(3) Crosswalk
- Be careful with the curb between the road and the crosswalk.
- Allow sufficient time to cross at the crosswalk so that the traffic light does not change while you are crossing.



(4) Slope
- Get the feel of riding up and down a slope.
- Check the manual for the wheelchair equipped with this product, and make sure that the slope is within the practical climbing angle. (Refer to the maximum safe slope angle in the Specifications table.)
- Restart carefully on an uphill.



(5) Automatic door
- Practice at the proper stopping position.



Getting Off the Wheelchair

WARNING

- **Make sure to turn off the power after traveling in the power drive mode is completed.**
  If the power is turned on while you are getting out the wheelchair and your body hits the joystick, the wheelchair may move unexpectedly, and you or other people in your surrounding area may get injured.

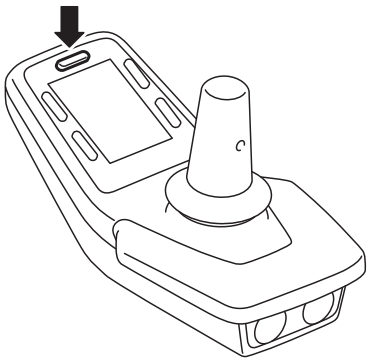
- **When getting out of the wheelchair onto a chair or a bed, always set the clutch levers to the power drive position and apply the parking brakes.**
  The wheelchair may start moving unexpectedly, resulting in you falling from the wheelchair and injure yourself.

How to stop the wheelchair

1 Use the joystick to park the wheelchair on a flat location.

2 Check that parking brakes are applied and that the clutch levers are in the power drive position.

3 Turn off the power to the controller.



Getting out of the wheelchair

Follow the same procedure as when getting in the wheelchair. Ensure that there is enough space to safely get out of the wheelchair.
► **P.61** "Securing clearance"

Removing the battery

After getting off the wheelchair, if the battery needs to recharge, or if you are not planning on using the battery for a long period, remove the battery from the wheelchair and recharge or store it. ► **P.83** "Handling the Batteries and Chargers"

4

5 Riding the Wheelchair with Assistant

This chapter describes the procedure for performing assistant operations in the power drive mode. The assistant controller is optional (sold separately).
Please read this manual carefully in conjunction with the instruction manual for the wheelchair equipped with this product.

⚠ WARNING

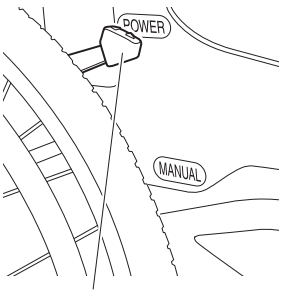
- **When switching the clutch levers to the manual drive position or push position, park on a flat surface, apply the parking brake, and turn off the power switch.**
  The wheelchair may start moving unexpectedly, resulting in injury to you or other people around you.

- **Do not switch the clutch levers to the manual drive position or push position in areas with an incline.**
  The wheelchair may start moving unexpectedly, and may collide or tip over.

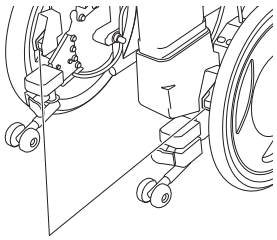
- **Do not operate the clutch levers while the wheelchair is in motion.**
  There is a risk of collision or tipping over.

- **Do not switch the clutch levers to the manual drive position or push position while traveling in power drive position.**
  Doing so, the motor brake may loses its effect. Especially on slopes, the wheelchair may go out of control.

- **Do not switch the clutch levers to the power drive position while traveling in the manual drive position.**
  If done so, the brakes are applied to the rear tires. This abrupt braking may cause your body to plunge forward by the reaction, causing injury to your or other people around you, or damage the wheelchair.



Clutch lever


Clutch levers

Before Moving Person into Wheelchair

Ensure that the wheelchair is firmly in a stable position, and is not moving.
Before traveling in the power drive mode, make sure that the battery is fully charged. For checking the battery charge level and how to install the battery, refer to the instructions on battery handling.
► **P.83** "Handling the Batteries and Chargers"

⚠ WARNING

- **When moving a person to the wheelchair, the following should be observed:**

  The wheelchair may start moving unexpectedly, resulting in you falling from the wheelchair and injure yourself.
  - Turn off the power.
  - Set the clutch levers to the power drive position.
  - Apply the parking brakes.

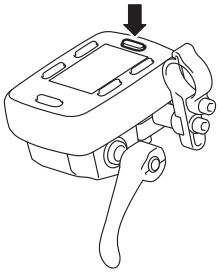
- **Always turn off the power to the controller before moving to the wheelchair.**

  If the power is turned on and the body of the person sitting in the wheelchair hits the joystick, the wheelchair may move unexpectedly, and you or other people in your surrounding area may get injured.

How to stop the wheelchair

1 Keep the wheelchair on a leveled and flat location.

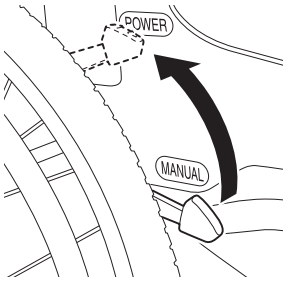
2 Turn off the power to the assistant controller.

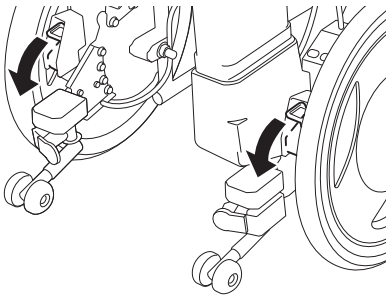


TIP

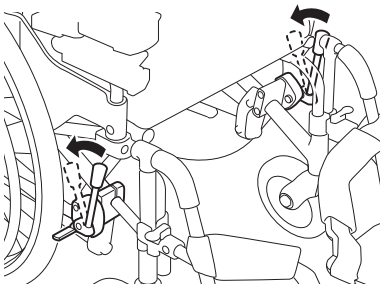
If the power to the controller is turned on before turning on the power to the assistant controller, the assistant controller will not turn on.

3 Set the clutch levers in the power drive position.

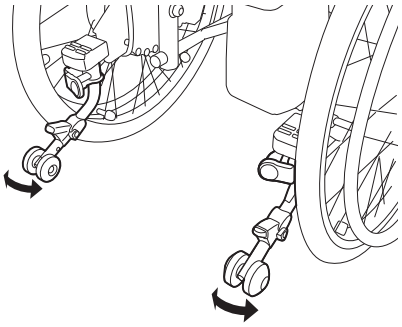




4 Apply the parking brakes.



5 Move the anti-tip device back and forth while it is extended to ensure that it is locked in position. (sold separately, if installed)



Moving Person into the Wheelchair

Securing clearance

1 Flip up the foot supports.

2 The following movable parts can be moved as needed to facilitate easy getting into/off the wheelchair.
- Move the controller ► **P.41** “Controller holder”

Checking the seating

After moving the person to the wheelchair, ensure that the following conditions are met:

- **The person is sitting firmly with a stable posture**
- **The foot supports are lowered and the feet of the person sitting in the wheelchair are firmly placed so that their heels touch the foot support belt.**
- **If you have moved any other movable parts, those parts are returned to their original positions and are secured in place.**

Check Before Riding the Wheelchair

⚠ WARNING

- **When the hands of a person in the wheelchair are near the rear tires or hand rims, do not provide assistance.**
  Clothing and fingers may get caught, posing a risk of injury.

Before turning on the power to the assistant controller

- **Clothes getting caught in the wheelchair**

  Do not ride with clothing such as pants or skirts with wide hems and lap blankets that may get caught in any part of the wheelchair.

- **Posture of a person in the wheelchair**

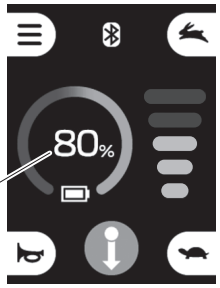
  Is the person in a wheelchair sitting properly? Are the hands clear from the rear tires or hand-rims?

Checking operation of the assistant controller

With the parking brake applied, turn on the power to the assistant controller.

- **Home screen**

  When you press and hold the power button (for about 2 seconds), a beep (Pi) will sound.
  The battery residual capacity is indicated in numerals.



Battery residual capacity indicator

If this LCD indication appears

LCD Indication	What to do
	The power switch was turned on while the accelerator lever was tilted. Turn off the power switch, release the accelerator lever, and then turn the power back on.
	(1) The wheelchair is locked due to this operation. Disable the anti theft function. ► **P.39** “Anti theft function” (2) The wheelchair is locked due to the operation the application. Disable the anti theft function.► **P.117** “Changing the settings”

If any other indication appears and the issue is not resolved, check in accordance with "Troubleshooting". ► **P.119** “Troubleshooting”

Riding the Wheelchair

If there are no problems in the operation check performed before getting into the wheelchair, release the parking brakes and begin riding the wheelchair.

Travel direction selector button

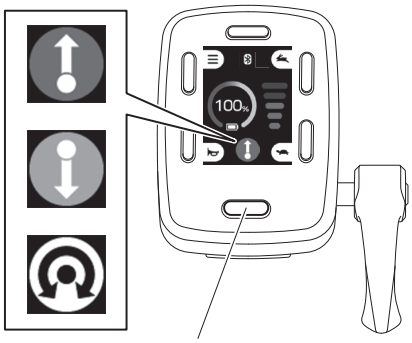
Make sure the travel direction of the wheelchair is set to the desired direction before using it.

- **Forward/backward**

  Press the travel direction selector button to switch between forward and backward direction.

- **Turns**

  Press and hold the travel direction selector button to switch to turn.



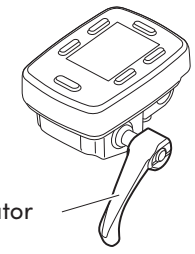
Travel direction selector button

Operating the accelerator lever

First, set the speed to the minimum, set the desired travel direction (forward, backward, or turns), and then grip the accelerator lever to confirm that the wheelchair moves forward, backward, or turns as intended.

- **Forward, backward, or turns**

  Set the travel direction to forward and grip the accelerator lever. The wheelchair will move forward.
  Set the travel direction to backward and grip the accelerator lever. The wheelchair will move backward.
  Set the travel direction to turns and grip the accelerator lever so that you can turn the wheelchair using the assistant handle. You can turn the wheelchair with the help of the assistant.



Accelerator lever

- **Slowing down and stop**

  The speed changes depending on the angle at which the assistant grips the accelerator lever. The wheelchair will slow down if the assistant releases the pressure on the accelerator lever. The wheelchair will stop when the assistant releases the accelerator lever.

Setting the maximum speed

First, set the speed to slow, and gradually adjust the speed as you become used to operating the wheelchair.

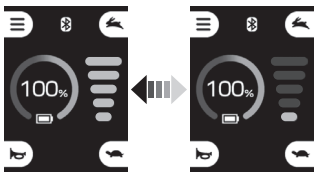
- **Setting the speed**

  Press the speed selector button (UP) to increase the speed, and press the speed selector button (DOWN) to decrease the speed.



Speed selector button (UP)

Speed selector button (DOWN)



Speed setting 5 (maximum set speed)

Speed setting 1 (minimum set speed)

Confirming the battery residual capacity

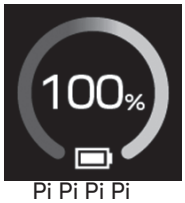
You can check the battery residual capacity on the LCD screen of the assistant controller.

- **Battery residual capacity indicator**

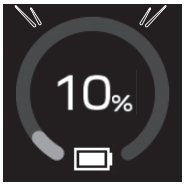
  The battery residual capacity is indicated in increments of 5%, from 100% to 5%.

- **Battery residual capacity warning**

  10%... The buzzer beeps “Pi Pi Pi Pi” (4 times)
  5%... The buzzer beeps “Pi Pi Pi Pi” (4 times)
  1%... The buzzer continues to beep “Pi -Pi -”.



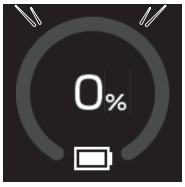
Pi Pi Pi Pi



- **Battery run out**

  When the battery runs out, the warning lamp flashes, the battery residual capacity display flashes “0”, a long beep “Pi -” sounds, and the wheelchair stops.

Long beep (Pi -)



Auto power off function

If the accelerator lever is not operated for 10 minutes while the power is turned, the power turns off automatically and the further operation cannot be performed.
If the power turns off, turn it back on.

Grip-type emergency stop function

If you feel danger, grip the accelerator lever tightly to stop the wheelchair.

TIP

Do not use the accelerator lever as brakes under normal conditions.



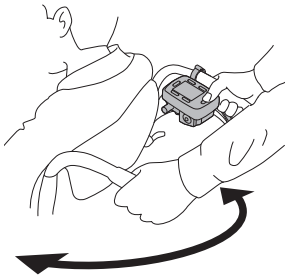
Basics of Driving the Wheelchair

If you are an assistant who operates a wheelchair in the power drive mode, correctly understand and perform the basic operations in the following situations:

Basic Operations

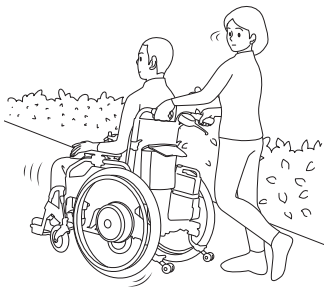
■ To change the direction of movement or to turn

- Whether in the manual drive mode or power drive mode, you can change the direction of the wheelchair using the hand grips.
- When driving in the power drive position, hold the accelerator lever to move the wheelchair forward and change the direction.



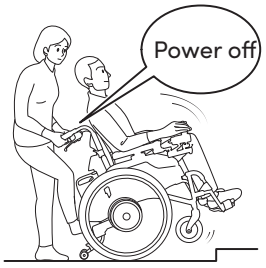
■ To descend a slope

- Descend in reverse to avoid the risk of plunging forward.



■ Getting up a curb

- Turn off the power to the assistant controller and switch the clutch levers to the manual drive position or push position.
- Move the wheelchair so that it can go over the curb at right angles.
- While gently stepping on the tipping plate of the anti-tip device as if pushing it forward, pull the hand grips down and rearward to raise the casters, and go over the curb.



■ Getting up a high curb

- If you have installed the E-Drive NXT anti-tip device (sold separately) on the wheelchair, stow it and proceed as you would when “Getting up on a curb”.
- When the E-Drive NXT anti-tip device (sold separately) is installed, be sure to return the E-Drive NXT anti-tip device to its original position and lock it securely after getting over the curb.

Getting Out of the Wheelchair

⚠ WARNING

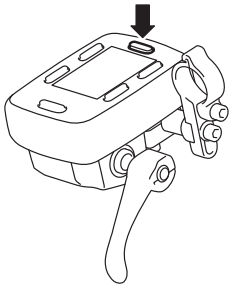
- **When getting out of the wheelchair onto a chair or a bed, always set the clutch levers to the power drive position and apply the parking brakes.**
  The wheelchair may start moving unexpectedly, resulting in you falling from the wheelchair and injure yourself.

How to stop the wheelchair

1 Stop the wheelchair on a leveled and flat location.

2 Check that parking brakes are applied and that the clutch levers are in the power drive position.

3 Turn off the power to the assistant controller.



When assisting getting out of wheelchair

Follow the same procedure as when getting in the wheelchair. Ensure that there is enough space to safely assist the person to get out of the wheelchair.

► **P.61** “Securing clearance”

Removing the battery

After getting off the wheelchair, if the battery needs to recharge, or if you are not planning on using the battery for a long period, remove the battery from the wheelchair and recharge or store it.

► **P.83** “Handling the Batteries and Chargers”

6 Handling the Batteries and Chargers

Handling the batteries, chargers

⚠ WARNING

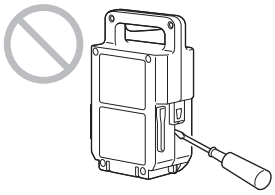
- **If you mishandle either of these batteries or their chargers, it may result in heat generation, rupture, electric shock, or injury. Be sure to adhere to the items below.**

The charger is not intended for use by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge (including children). If such people use the charger, their use must be supervised or instructed by someone responsible for their safety. Supervise children to ensure they do not play with the charger.

Do not touch the metal terminals of the battery or charger directly with your fingers or clean the terminals with a wet towel. Otherwise, electric shock or a short circuit could occur.

Do not recharge the battery using a charger other than the designated charger, or use the battery on anything other than the specified wheelchair.

Do not disassemble or modify the battery.



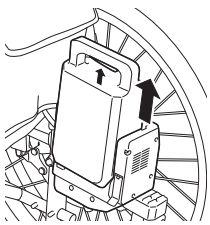
Do not place the battery near an open fire or throw it into a fire.



Do not place the battery in water, or splash water on it.



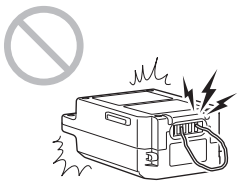
When transporting the wheelchair, in an automobile, for example, remove the battery from the wheelchair.



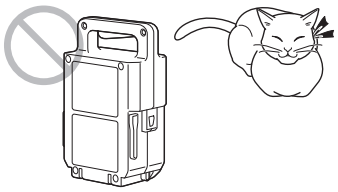
⚠ WARNING

- **If you mishandle either of these batteries or their chargers, it may result in heat generation, rupture, electric shock, or injury. Be sure to adhere to the items below.**

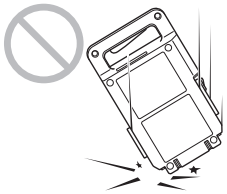
Do not short the terminals of the battery with wires or other metals.



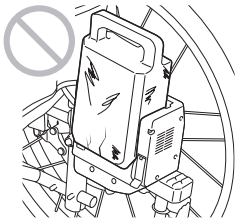
Do not store the battery in a place where children or pets could come near it.



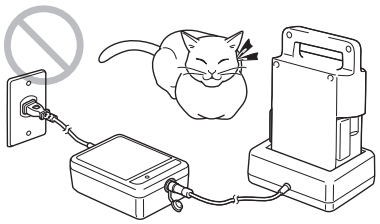
Do not drop or subject the battery to impact.



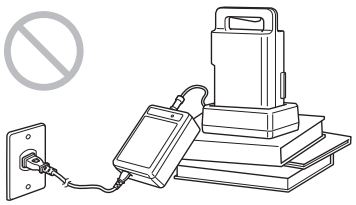
Do not use a broken or damaged battery.



Do not charge the battery in a place where children or pets could come near it.



Use the charger on a level surface. After use, do not keep it plugged into the power outlet.

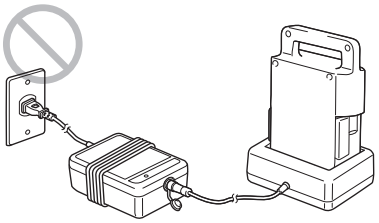


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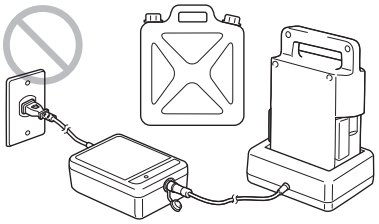
⚠ WARNING

- **If you mishandle either of these batteries or their chargers, it may result in heat generation, rupture, electric shock, or injury. Be sure to adhere to the items below.**

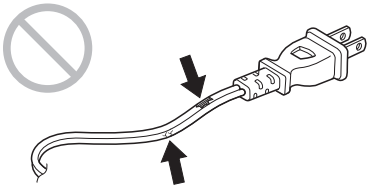
Do not wrap the power cord or the charging cable around the charger when charging.



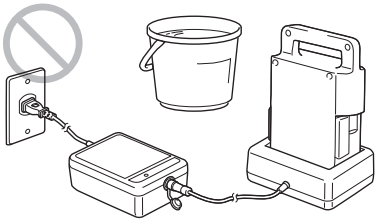
Do not use the charger outdoors or near any flammable object.



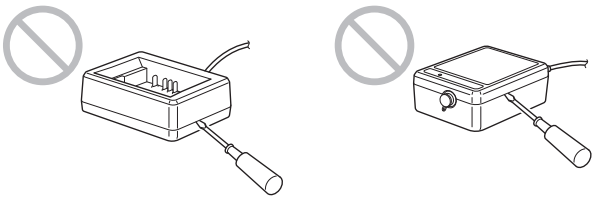
Do not use a damaged cord or a cord with damaged power socket or damaged power plug.



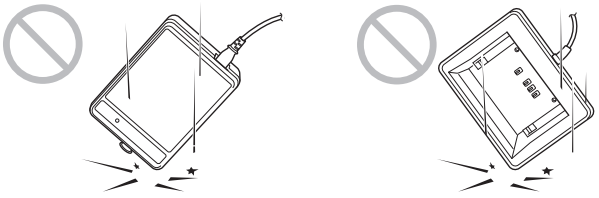
Do not touch the charger and power cord with a wet hand.
Do not use the charger submerge it in water, splash water on it or leave it in the rain.



Do not disassemble or modify the battery charger.



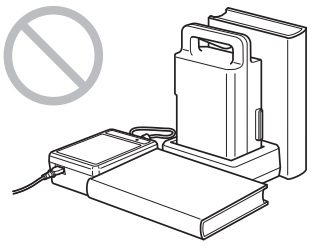
Do not drop or subject the charger to impact.



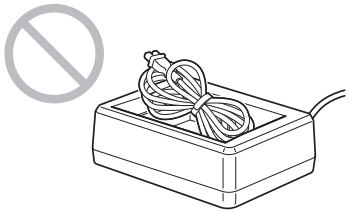
⚠ WARNING

- **If you mishandle either of these batteries or their chargers, it may result in heat generation, rupture, electric shock, or injury. Be sure to adhere to the items below.**

While charging, do not place anything around the charger.
Make space for the heat radiation.



Do not insert cords or other items into the battery socket.



If the battery or the charger is deformed or has an unusual odor, or if you notice any other abnormality, do not use the battery or charger.

Avoid prolonged contact with the skin.
It is normal for the charger to heat up while it is charging. Therefore, prolonged contact with the skin may result in a low-temperature burn injury.

If a power extension cord is used when charging, do not exceed the current rating of the extension cord.

Inserting/Removing the Battery

⚠ WARNING

- **Do not insert the battery if the inside of the battery seat of the wheelchair is dirty or wet.**
  Doing so may cause a short circuit, resulting in heat generation, fire, or electric shock.

Notice

- **Do not replace the battery while the power is turned on.**
  Doing so will damage the contacts or the wheelchair.

Notice

- **Regularly remove the battery from the battery seat and clean the battery seat and contacts. (Once a week)**
  Not doing so may cause the wheelchair to stop while traveling.

Installing the battery

Installing of the battery vary depending on the battery seat type.

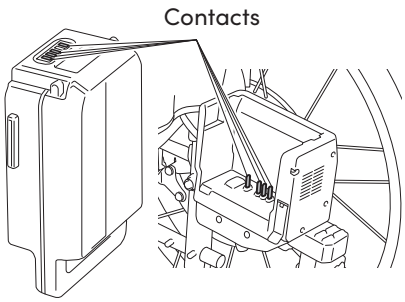
Integrated battery seat: Integrated

Detachable battery seat: Detachable

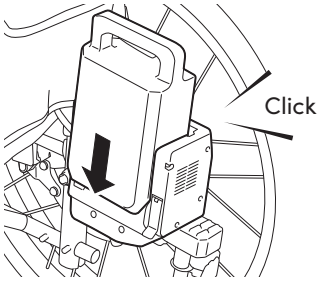
Integrated

1 Confirm that the power to the wheelchair is turned off.

2 Confirm that the battery and battery seat are not wet and that the contacts are not dirty.
If wet or dirty, wipe the battery seat or the contacts with a dry cloth.



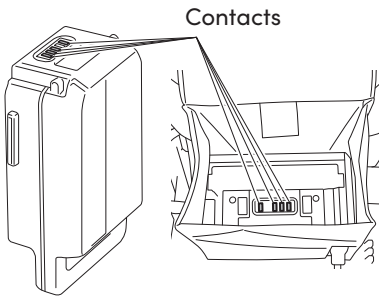
3 Insert the battery until it clicks into place.



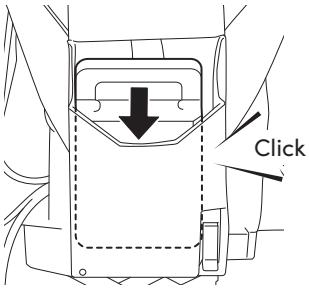
Detachable

1 Confirm that the power to the wheelchair is turned off.

2 Confirm that the battery and battery seat are not wet and that the contacts are not dirty.
If wet or dirty, wipe the battery bag or the contacts with a dry cloth.



3 Insert the battery until it clicks into place.



Removing the battery

Removing of the battery vary depending on the battery seat type.

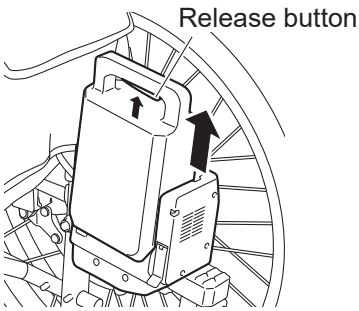
Integrated battery seat: Integrated

Detachable battery seat: Detachable

Integrated

1 Confirm that the power to the wheelchair is turned off.

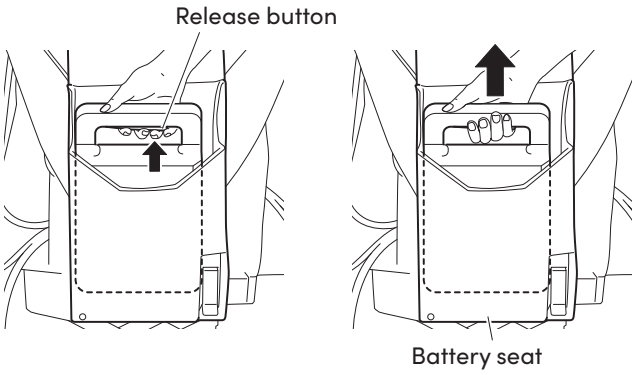
2 Disconnect the battery by pulling it straight outwards while pressing the release button. Do not pull it out at an angle.



Detachable

1 Confirm that the power to the wheelchair is turned off.

2 Place your hand on the battery seat and pull it straight outwards while pressing the release button. Do not pull it out at an angle.



Lithium-ion Battery [Model: JWB3]

Features

- Equipped with a Battery Management Control System (BMC). (Built-in microcomputer) This is a system that uses a computer to track charge/discharge status, operating conditions, and temperature.
- Even with repeated shallow discharge/charge cycles, it is difficult for the memory effect to occur. Therefore, refresh charging is not necessary, and its charges can be replenished additively.
- This is an environmentally friendly battery that does not contain mercury or cadmium.
- Compact but high capacity.
- When going down a slope in a wheelchair, the internal motor generates electricity, and charging occurs.

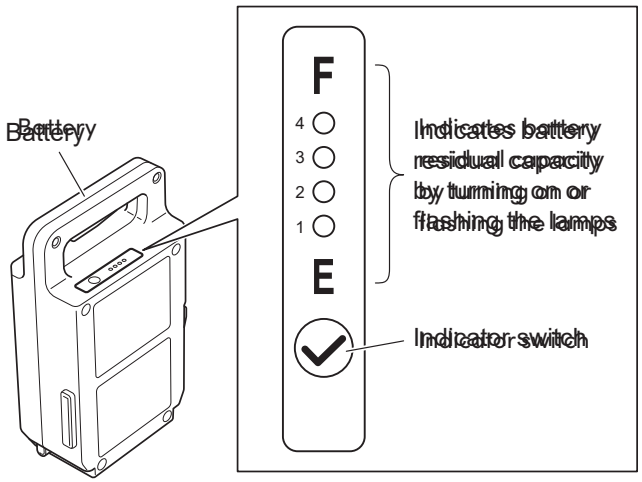
How to use the battery

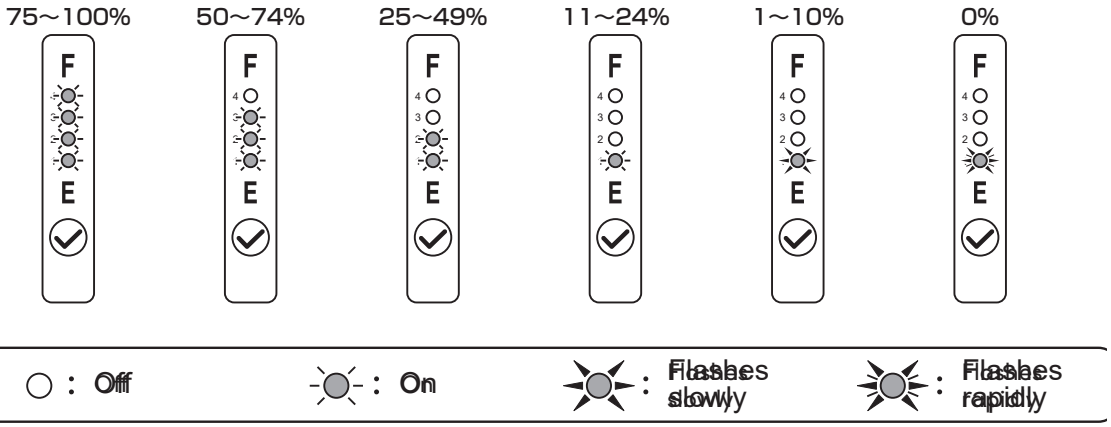
◖ **Attaching and removing the battery to and from the wheelchair**

For instructions on attaching and removing the lithium-ion battery to and from the wheelchair, see ► **P.88** “Installing the battery”, ► **P.90** “Removing the battery”.

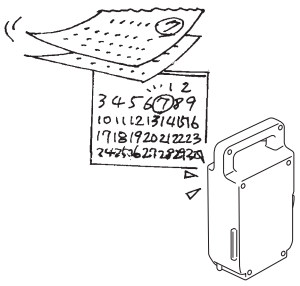
◖ **Checking the battery residual capacity**

Press the indicator switch to display the battery residual capacity.





Storing the battery



Store the battery in a cool, dry area. (A place with a temperature between 10 to 25°C is suitable for storage.)
If you are not planing on using the battery for a long period (30 days or more), charge it until two of the capacity indicator lamps come on, and then store it.
To store the battery without using it for over three months, check every three months to make sure that two of the capacity indicator lamps light up.
If only one capacity indicator lamp is lit, charge the battery until the three lamps turn on.

Characteristics and handling

Temperature environment

Depending on the temperature environment, the distance that can be traveled may be shortened.
To maximize the battery performance, it is recommended to use the battery under the following conditions.

Recommended temperature

When in use on the wheelchair:
Temperature range between 0 to 35 °C
When removed from wheelchair and stored:
Temperature range between 10 to 25 °C
When charging:
Temperature range between 10 to 25 °C

- Storing the battery in excessively high or low temperatures will speed up its degradation, and its capacity will rapidly decrease.
- Using the wheelchair in excessively high or low temperatures will cause the battery deterioration to speed up and its capacity to rapidly decrease. For information on degradation, see “Battery’s deterioration characteristics” on the next page.

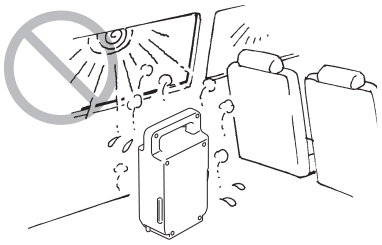
Available temperature

When in use on the wheelchair:
Temperature range between -25 to 50 °C
When removed from wheelchair and stored:
Temperature range between -40 to 65 °C
When charging:
Temperature range between 0 to 40 °C

If the temperature inside the battery is below 0 °C or above 60 °C and regenerative current is detected, an error is displayed and the wheelchair stops.
And depending on the ambient temperature, the distance that can be traveled becomes shortened and the battery deterioration will be accelerated.
To maximize battery performance, use the battery under the “Recommend temperature” conditions.

- Storing a battery in hot or cold temperatures will cause the battery to deteriorate rapidly and its capacity will rapidly decrease.

- If you continue to use your wheelchair in extremely low temperatures, the battery will deteriorate faster and its capacity will rapidly decrease. For information on battery deterioration, see ► **P.94** "Battery deterioration".



TIP

When the internal temperature of the lithium-ion battery becomes too high or too low while the wheelchair is in operation, the LCD indication on the controller will change to a warning and buzzer will sound. Depending on the conditions, the wheelchair may stop during operation. Avoid operating the wheelchair with the battery in the following conditions.

- The batteries that have been stored in direct sunlight or in a car,etc., and the internal temperature has risen
- A battery with an increased internal temperature immediately after charging was stopped due to overheating
- A battery stored in a place where the temperature drops below freezing and the internal temperature of the battery has dropped.

Battery temperature alert

When the internal temperature of the battery falls below 2°C or exceeds 58°C, "N6" is displayed on the LCD screen.
When the internal temperature of the battery falls below 0°C or exceeds 60°C, "CA" is displayed and the speed of the wheelchair is restricted to 1 km/h. Move to a place with a temperature of about 10 to 25°C as soon as possible.





Stopping the wheelchair

If the battery is charged while going downhill while the display shows "CA", the wheelchair may stop to protect the battery.
In such a case, the wheelchair will stop with a beep "Pi -", and "EC81" will be displayed on the LCD screen.



Battery deterioration

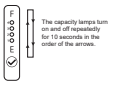
Batteries are consumables. A battery gradually deteriorates and its capacity decreases over the time and with use. The extent to which capacity deteriorates varies depending on the use conditions.
Even if the battery is not used, and stored over a long period of time, it will deteriorate and its capacity will decrease.
When using multiple batteries, alternate between the batteries.

Maximum lifespan of the lithium-ion battery

The maximum lifespan of the lithium-ion battery (JWB3) is 8 years from its initial charging, when the cumulative charge capacity reaches 7,200 Ah, or the battery deterioration level (*) drops 25% or below.

* The battery deterioration level is expressed as a ratio of the capacity compared to a new battery.

- Battery life alert
  The capacity indicator lamp starts alerting you from three months prior to the battery becoming no longer chargeable due to its end-of-life, or when the integral charge capacity reaches 6,900 Ah or the battery deterioration level drops to 50%.
  When charging starts, the indicator lamps turn on, and then the capacity is indicated as shown in the figure on the right.
  At this time, “N1” is displayed on the LCD screen.



The capacity lamps turn on and off repeatedly for 10 seconds in the order of the arrows.



- When the battery reaches end of life
  When the battery reaches its end of life, the lamp on the charger will not turn on when attempting to charge the battery. Moreover, the battery's capacity indicator lamps no longer turn on and the battery cannot be charged.
  At this time, “N2” is displayed on the LCD screen.



TIP

● **If You Forget Start Date of Lithium-ion Battery**

Check the number on the bottom of the battery.



246K

Manufactured on June 19, 2024

Manufactured on June 19, 2024

Number	Year
24	2024
25	2025
26	2026
27	2027
28	2028
29	2029
30	2030
31	2031
...	...

Number	Month
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
X	10
Y	11
Z	12

Number	Date
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
A	10
B	11
C	12
D	13
E	14
F	15
G	16

Number	Date
H	17
J	18
K	19
L	20
M	21
N	22
O	23
P	24
Q	25
R	26
S	27
T	28
U	29
V	30
W	31

- The battery's start date is the date the user charged it for the first time after it was shipped from the factory.
(This does not match the manufacturing date above.)
- If the integral charge capacity reaches 7200 Ah or the battery deterioration level falls 25% or below, the battery will not be usable even if it has not completed 8 years of lifespan.

TIP

The battery is a recyclable battery that contains valuable renewable resources.
Kindly recycle your used batteries.
Collect and recycle the used batteries at your dealer.

How to charge the lithium-ion battery (JWB3)

There are two ways to charge the battery; by removing it from the wheelchair (tabletop charging), or while it is still attached to the wheelchair (on-vehicle charging).

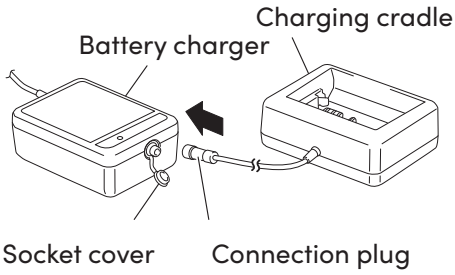
◖ **Charging time**

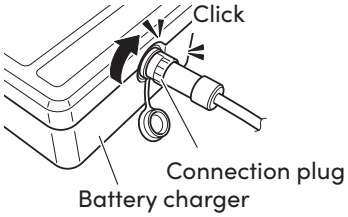
Charging time: 5 hours (when charging the battery from an empty state)

◖ Charging the battery out of the unit (tabletop charging)

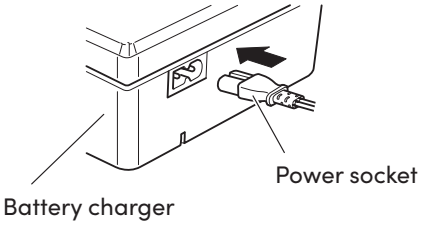
1 Remove the socket cover from the charger and connect the plug of the charging cradle to the charger.

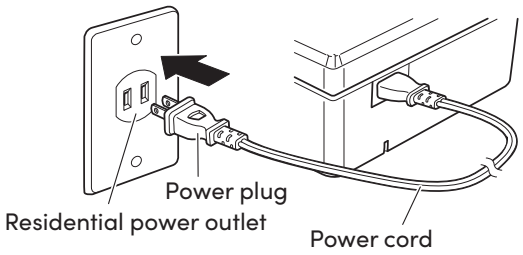
> TIP
>
> Insert the connection plug into the charger, and turn the plug as sHown in the figure until you hear a "click" to lock it.





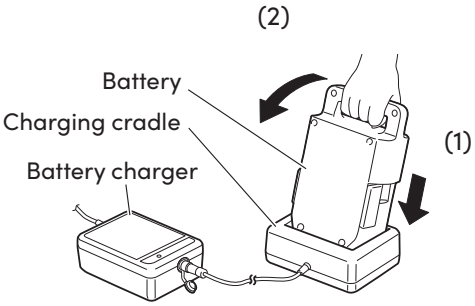
2 Insert the power socket into the charger and connect the power plug to a residential power outlet.



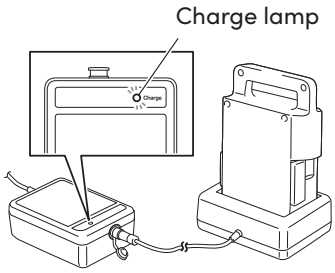


3 Insert the battery into the charger as shown in the figure.

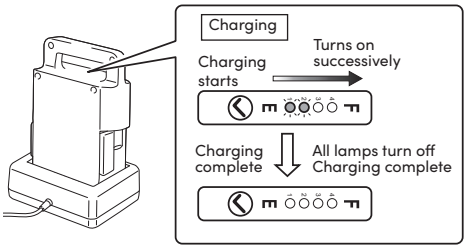
> TIP
>
> As shown in (1) in the figure on right, insert the battery in the tilting position, align the tab with the guide while raising it in the direction of (2). Then, securely connect the battery.



4 The charge lamp on the charger will turn green and the charging will start automatically.



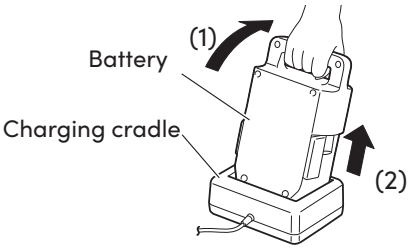
5 While charging, you can check the charging status with the capacity indicator lamps on the battery.
The capacity indicator lamps turn off when the charging is completed.
Assuming that the charging started with the battery in an empty state, the time to completion is typically 5 hours.



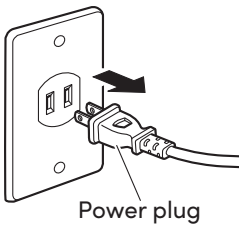
6 Remove the battery from the charger as shown in the figure.

TIP

As shown in (1) in the figure on the right, tilt the battery and then lift it diagonally in the direction indicated in (2).
When you pull the battery straight up without tilting it, the charging cradle and the battery do not separate and come up together.



7 Remove the power plug, then the power socket, the charging plug, and then close the charger's socket cover securely.



Notice

- **Do not pull on the power cord to unplug. This can cause the wires to break.**
- **Do not use excessive force to unplug power socket or charging plug. This can cause the connectors to break.**

◖ Charging the battery attached to the wheelchair : on-vehicle charging cable (sold separately)

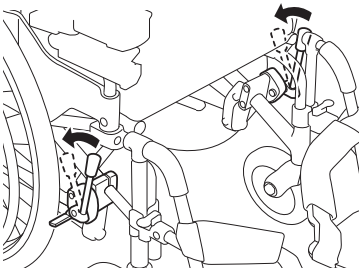
Installing of the battery vary depending on the battery seat type.

Integrated battery seat: Integrated

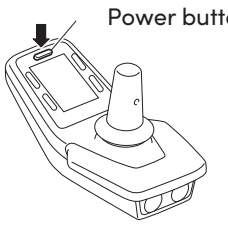
Detachable battery seat: Detachable

Integrated

1 Prepare the wheelchair for charging.
Remove any bags and luggage from the backrest of the wheelchair, and any other objects that can potentially cause disconnection of the charge cable.
Park the wheelchair indoors on a level floor, and apply the parking brakes.



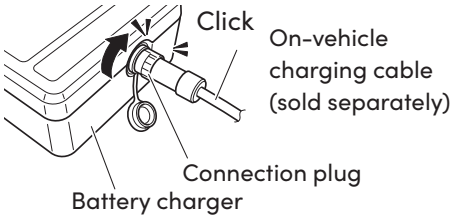
2 Turn off the power to the wheelchair.
To avoid accidents, the power will not turn on even if you press the button during the on-vehicle charging.



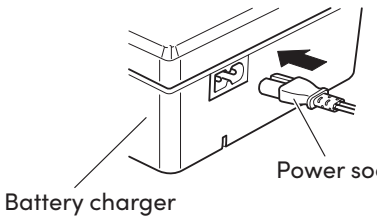
3 Remove the socket cover from the charger and connect the plug of the on-vehicle charging cradle (sold separately) to the charger.

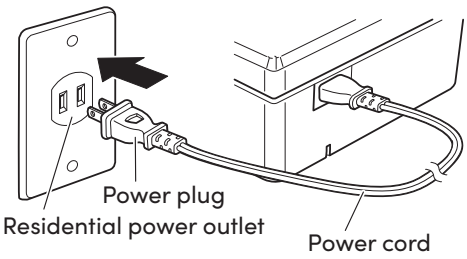
TIP

Insert the connection plug into the charger, and turn the plug as shown in the figure until you hear a click.

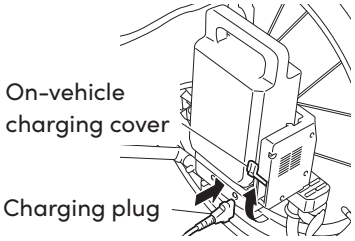


4 Insert the power socket into the charger and connect the power plug to a residential power outlet.

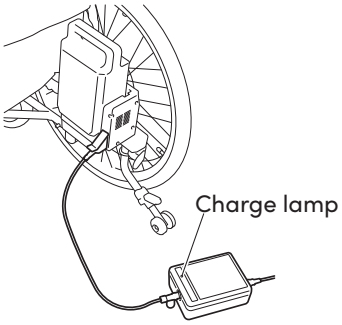




5 Open the on-vehicle charging cover of the battery seat and connect the charging plug of the charging cable.

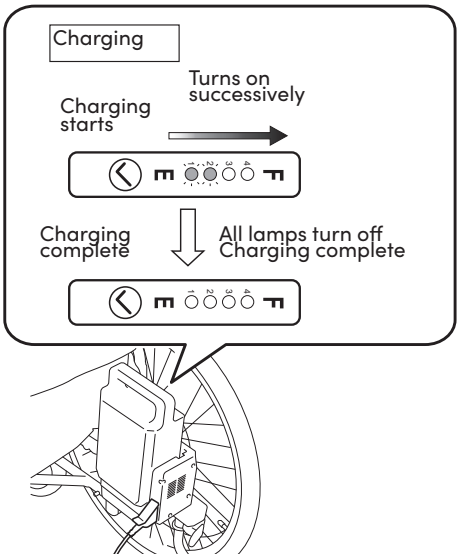


6 The charge lamp on the charger will turn green and the charging will start automatically.

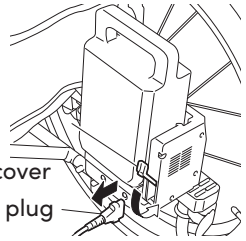


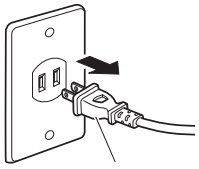
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7 While charging, you can check the charging state with the capacity indicator lamps on the battery.
The capacity indicator lamps turn off when the charging is completed.
Assuming that the charging started with the battery in an empty state, the time to completion is typically 5 hours.



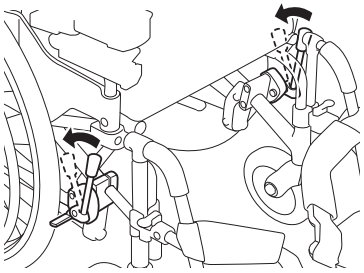
8 After the charging is completed, unplug the power plug, then the power socket, the charging plug and then securely close the battery's on-vehicle charging cover of the battery seat.



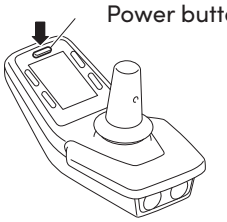


Detachable

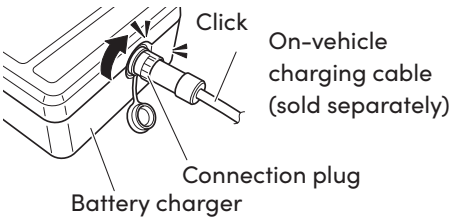
1 Prepare the wheelchair for charging.
Remove any bags and luggage from the backrest of the wheelchair, and any other objects that can potentially cause disconnection of the charge cable.
Park the wheelchair indoors on a level floor, and apply the parking brakes.



2 Turn off the power to the wheelchair.
To avoid accidents, the power will not turn on even if you press the button during the on-vehicle charging.



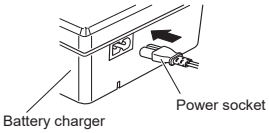
3 Remove the socket cover from the charger and connect the plug of the on-vehicle charging cradle (sold separately) to the charger.

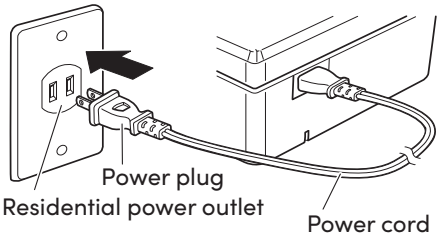


TIP

Insert the connection plug into the charger, and turn the plug as shown in the figure until you hear a click.

4 Insert the power socket into the charger and connect the power plug to a residential power outlet.

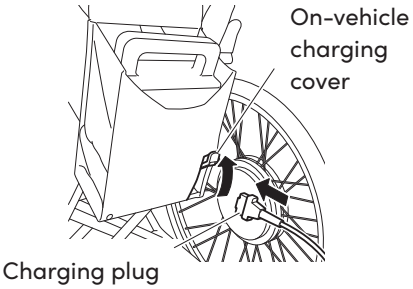




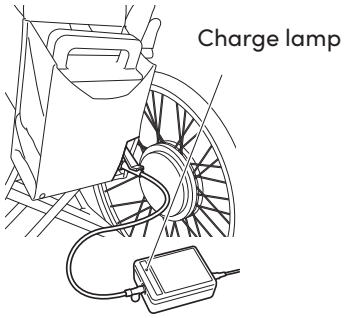
Power socket

Battery charger

5 Open the battery bag. Open the on-vehicle charging cover of the battery seat and connect the plug of the charging cable.

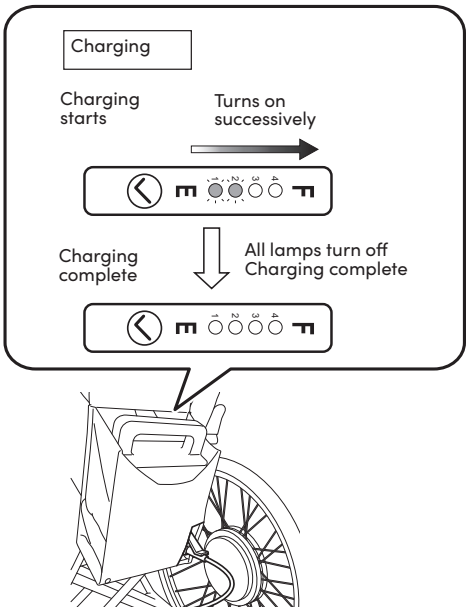


6 The charge lamp on the charger will turn green and the charging will start automatically.

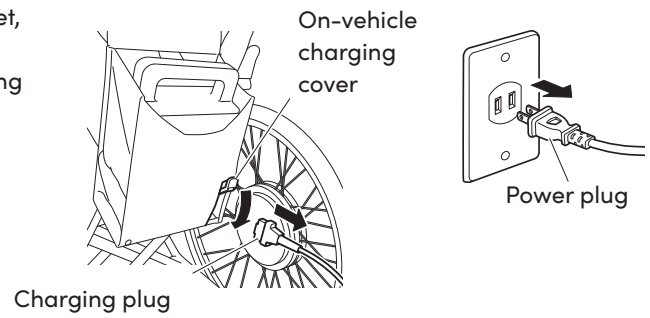


6

7 While charging, you can check the charging state with the capacity indicator lamps on the battery.
The capacity indicator lamps turn off when the charging is completed.
Assuming that the charging started with the battery in an empty state, the time to completion is typically 5 hours.



8 After the charging is completed, unplug the power plug, then the power socket, the charging plug and then securely close the battery's on-vehicle charging cover of the battery seat.



Notice

- **Do not pull on the power cord to unplug. This can cause the wires to break.**
- **Do not use excessive force to unplug power socket or charging plug. This can cause the connectors to break.**

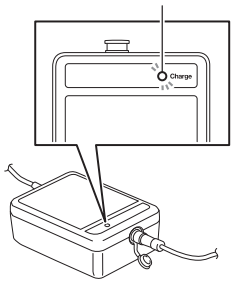
TIP

When you cannot charge the battery,
• Refer to ► **P.119** "Troubleshooting".

◖ **Suitable temperature during charging**

Charge the battery in an environment with a temperature of 10 to 25°C.

Charge lamp

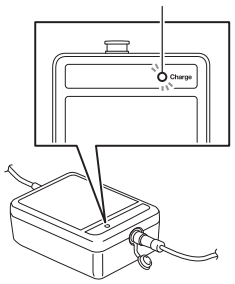


- To protect the battery, if the internal temperature of the battery is 0°C or below or 45°C or above, charging does not start. Instead, it enters a standby mode. During this time, the charge lamp flashes green.
  While in standby mode, when the battery reaches an appropriate temperature, the charge lamp will change from flashing green to a steady green, and charging will start automatically. (The length of the standby time varies depending on the conditions.)
- The battery temperature increases during charging. However, if the battery temperature rises above 70°C, the power for the charger will turn off to protect the battery.
  In such a case, since the charging is not completed, it is necessary to charge again after the battery temperature has decreased.

Charger (JWC4) Indicator Lamps

The charger has a charge lamp
The charge lamp indicates the battery and charging conditions according to the lamp's color, and whether it is on or flashing.
The lamp indications are explained in the following table.

Charge lamp

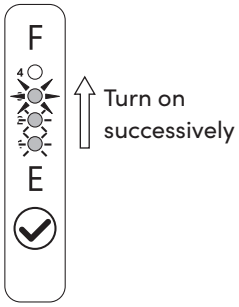
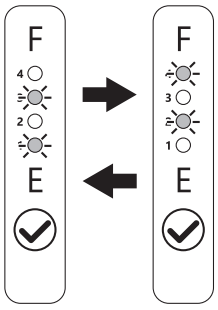
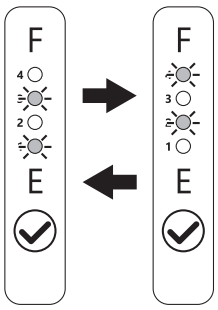


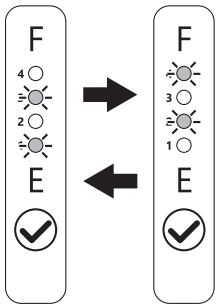
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TIP

- Standby mode may be activated, and the charge indicator lamp may flash green (once per second) if the ambient temperature changes while charger is charging. In the standby mode, charging does not start. When the temperature becomes suitable for charging, the charging indicator lamp will stop flashing and remain on green, and the charging operation will automatically re-start.
- If standby conditions continue for a long time, the charge indicator lamp will start flashing yellow (once per second) and charging operation will be terminated. If this happens, unplug the charging plug and the power plug. Reconnect the charger as instructed in ► **P.95** “How to charge the lithium-ion battery (JWB3)” and charge the battery again.

When charging the Lithium-ion battery (JWB3)

Charger lamp indication	Battery capacity indicator lamps	Description
■ The charge lamp is lit green  Charge lamp (green)	 Turn on successively	Indicates normal charging. The charge lamp will turn off after charging has completed.
■ The charge lamp is flashing in green (once per second)  Charge lamp (green)	 All lamps flashing	Indicates charge standby. • When the temperature of the battery is not within the chargeable range (0 to 45°C), the charger enters a standby state and the charge lamp starts flashing in green. • Once the battery temperature falls within the chargeable range during standby, charging will start automatically and the charge lamp (green) changes from flashing to an “on” state.
■ The charge lamp is flashing in yellow (once per second)  Charge lamp (yellow)	 1 and 3 ↕ 2 and 4 turn on alternatively	Indicates timeout of charge standby. • The charger has remained in standby mode for a long time and has stopped charging the battery. Wait for the battery temperature to drop, and then relocate the battery in an environment suitable for charging. • If the charging standby state exceeds 12 hours, it will time out and stop charging.
■ Lit red  Charge lamp (red)	 1 and 3 ↕ 2 and 4 turn on alternatively	Indicates that a problem has been detected in the charger. Disconnect the power plug to stop charging. Check that there are no abnormalities with the battery, charger, or cord connections, and then charge again. If the charge lamp turns red again, an equipment failure may have occurred. Disconnect the power plug to stop charging and consult with the shop or the dealer.

Charger lamp indication	Battery capacity indicator lamps	Description
■ Flashes red  Charge lamp (red)	 1 and 3 ↕ 2 and 4 turn on alternatively	Indicates a communication error between the charger and the battery. Check the charger and battery terminals, clean them with dry cloth or the like, and then charge again. If the charge lamp flashes red again, an equipment failure may have occurred. Disconnect the power plug to stop charging and consult with the shop or the dealer.
■ Lit yellow  Charge lamp (yellow)	 1 and 4 are flashing	Indicates that a problem has been detected in the battery. Disconnect the power plug to stop charging. Check that there are no abnormalities with the battery, charger, or cord connections, and then charge again. If the charge lamp turns yellow again, an equipment failure may have occurred. Disconnect the power plug to stop charging and consult with the shop or the dealer.

7 Transport, Maintenance, and Storage

When transporting the wheelchair in an automobile or when not using it for a long period of time, be sure to follow the instructions and handle it correctly.
For handling and long-term storage of removed batteries, see ► **P.83** “Handling the Batteries and Chargers”

⚠ WARNING

- **When lifting a wheelchair, never lift it by battery, controller, or cables.**
  Otherwise, any of these devices may come off and cause an injury or damage to the equipment.

Notice

- **Do not drop or subject the wheelchair to an impact.**
  This may cause damage to the unit, controller, or battery.

Loading the Wheelchair in Vehicle

This chapter describes steps to load the wheelchair equipped with this product in a car. Please read this manual carefully in conjunction with the instruction manual for the electric wheelchair equipped with this product. If you are using a wheelchair-accessible vehicle, check the vehicle's instruction manual.

Notice

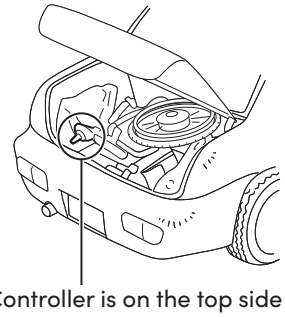
- **During transport, do not place the battery or the wheelchair in a place that can become hot, or in direct sunlight.**
  This could lead to malfunction, or could cause the deterioration of the battery to progress rapidly.

Loading the wheelchair

1. Park the wheelchair on a flat location and turn off the power.
2. Check that both parking brakes are applied and that the clutch levers are in the power drive position.
3. Remove the battery.
4. Load the wheelchair upright by holding the frame portion with both hands.
5. Secure the wheelchair to prevent it from moving or any surrounding objects by strapping it with a belt, etc. or placing a shock absorbing material under or around the wheelchair.

TIP

If you have to place the wheelchair on its side, place it so that the controller is at the top and secure the wheelchair while ensuring that the controller is not hitting against any surrounding object.



Controller is on the top side

Unloading the wheelchair

1 Hold the wheelchair frame portion with both hands and lower it on a flat location.

2 Make sure the anti-tip bar is locked in the outward position. (sold separately, if installed)

Handling in Airplane

When traveling by airplane, handling of the electric wheelchair may vary depending on the airline. Inform the airline company in advance, that you will be using an electric wheelchair, and follow their instructions.
In particular, there may be restrictions on carrying the batteries on-board, or checking-in as a baggage. Be sure to consult with the airline company in advance.
Provide the airline company with the following specifications of your electric wheelchair and battery, if necessary:

- **Lithium-ion battery (shown as "Li-ion" on the label)**

  Model: JWB3
  Voltage: 36 V
  Capacity: 6.45 Ah (232,2 Wh)
  Type: Dry cell with a built-in microcomputer

Maintenance

Notice

- **Do not wash by directly hosing it down with water, or using steam.**
  The electronic devices can get damaged, which may lead to malfunction.

- **Do not clean with solvent such as gasoline or thinner.**
  This may damage the paint or the plastic parts.

Maintaining the electric power unit

Dirt

To wipe off normal dirt or spots, use a tightly wrung-out towel.

Contact with water

Wipe off any moisture in the wet areas and allow those areas to dry.

Use of detergent

Dilute a neutral detergent with water, soak a towel in it, and wring it out thoroughly before wiping.

Disinfectant

When disinfecting the product, use an alcohol-based disinfectant suitable for your application. When using, follow the disinfectant manufacturer's instructions for exposure time, concentration, etc. Then soak a towel with disinfectant and wipe the product with the towel. After disinfection, soak the towel in clean water, squeeze it tightly, and wipe off any remaining alcohol with the towel.

Notice

- **Regularly remove the battery from the battery seat and clean the battery seat and contacts. (Once a week)**
  Not doing so may cause the wheelchair to stop while traveling.

⚠ WARNING

- **Read the disinfectant manual carefully before using the disinfectant.**

- **Normal repairs**

  If other parts are damaged or lost, immediately contact the dealer. Have the dealer replace the parts or repair the wheelchair.
  For normal maintenance, repairs, or service, be sure to contact the dealer. The user should not repair or service the wheelchair, or remove, pack, and send the parts to request repairs. If the wheelchair is not repaired or assembled completely, the user or those around the user could be injured.
  To perform repairs and service, the dealer uses the service manual, parts catalog, and other documentation. These items are not sold to the general public.
  When requesting repairs, do not send the wheelchair directly. First, contact the dealer.
  In addition, a substitute wheelchair will not be provided during repairs or inspections.
  You must pay for repairs that are not covered by the warranty.

- **Service life & Replacement parts**

  The estimated service life is 6 years. However, the service life depends on the usage condition, environment and frequency. The service life means the period in which the product performance shall be maintained with performing the maintenance and inspection by the dealer. Parts that are necessary for repairs will be available for 8 years after the production has ended.

Reuse

When E-Drive NXT is to be handed over to a new user, all technical documentation must also be handed over. The product must be professionally cleaned, disinfected and serviced.

Storing of the Wheelchair

⚠ WARNING

- **Always remove the battery from the wheelchair when storing.**
  The power to the wheelchair may turn on, causing the wheelchair to start moving unexpectedly, resulting in injury to you or other people around you.
  Moisture and other factors can cause poor insulation, leading to heat generation and fire.

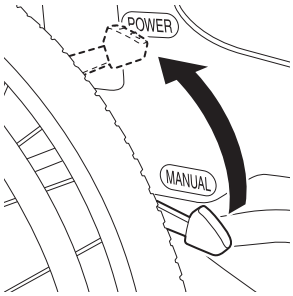
Notice

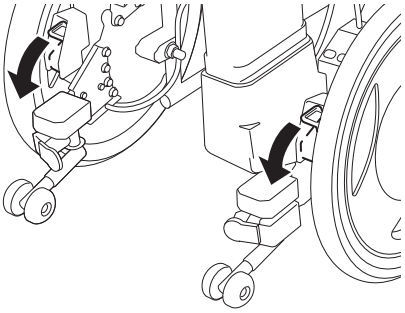
- **Always remove the battery from the wheelchair when storing.**
  This could cause the deterioration of the battery to progress rapidly.
- **Do not store the battery wet or dirty for a long period of time.**
  This may lead to malfunction.
- **Do not store in a place that can get wet by rain, or that are high in humidity.**
  This may lead to malfunction.
- **Do not store in a place that can become hot, or in direct sunlight.**
  This could lead to malfunction, or could cause the deterioration of the battery to progress rapidly.

Storing the wheelchair

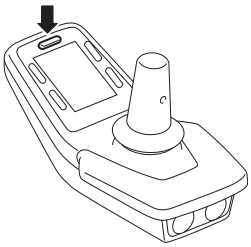
If you are not planning to use this product for a long period of time, check the following conditions and store it in a dry place indoors.
Please read this manual carefully in conjunction with the instruction manual for the electric wheelchair equipped with this product.

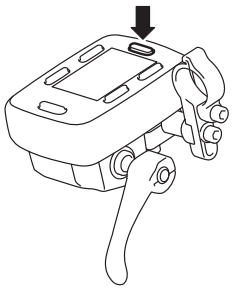
- **The clutch levers are in the power drive position**





- **The power is turned off**





- **The battery is removed**

  For long-term storage of the removed battery, refer to the following and handle it correctly.
  ► **P.92** “Storing the battery”

- **No water or dirt is adhered**

  Wipe off any water droplets or dirt before storing. ► **P.109** “Maintenance”

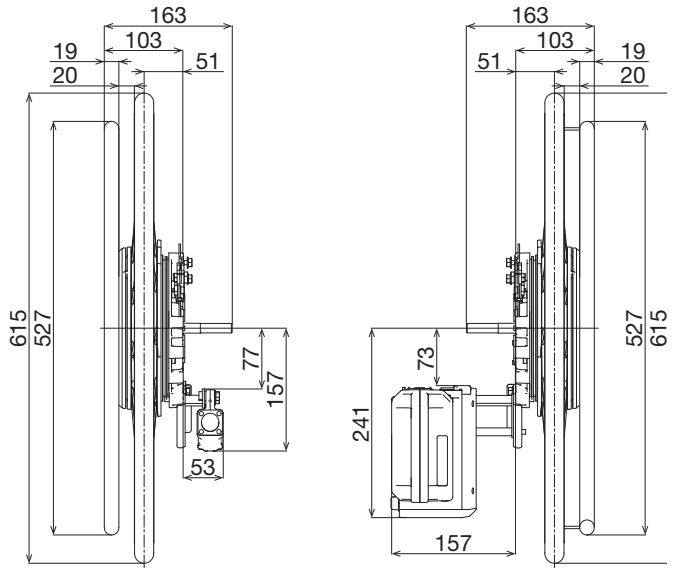
8 Dimensions and Specifications

This chapter describes the specifications of the electric power unit.

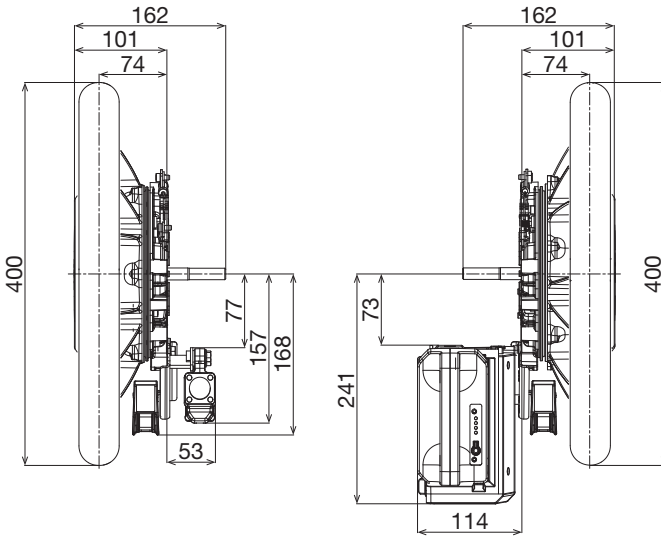
Dimensions (in mm)

E-Drive NXT (24 inch)

The outer diameter of the tire and hand-rim varies depending on the tire size. The figure below shows the dimensionsfor the 24 inch model.



E-Drive NXT (16 inch)



Specifications

Model					E-Drive NXT		
Weight	Total (R+L unit + JS Controller + Battery bag incl. battery seat + battery)				16.1 kg	16.5kg	16.9 kg
	Right unit				5.8 kg	6.0kg	6.2 kg
	Left unit				5.8 kg	6.0kg	6.2 kg
	Joystick Controller with vertical holders				0.8 kg		
	Assistant controller with bracket				0.36 kg		
	Li-ion Battery				2.4 kg		
Rear tire	Tire size				16 inch	22 inch	24 inch
	Tire specifications				47-305 (16 × 1.75)	25-489 (22 × 1)	37-540 (24 × 1 3/8) 25-540 (24x1)
	Recommended air pressure				Solid inner hose	5-10 bar	4,5 bar 6-10 bar
Battery	Li-ion (JWB3)				(36 V 6.45 Ah) × 1 (5 hour rate) (232,2 Wh)		
Battery Charger	Rated output during charging				42 V·1.6 A		
Drive motor					AC servomotor 36 V 150 W × 2		
Drive system					Rear wheel direct drive		
Brake system					Motor generative brake + Electromagnetic brake		
Steering system					Joystick steering		
Control system					Microprocessor control		
Travel range	with Li-ion battery (JWB3) *1				20 km	25 km	25 km
Maximum speed km/h *5	Joystick Controller	Forward	1st	6 km/h·8.5 km/h	1.2 km/h·1.7 km/h		
			2nd		2.4 km/h·3.4 km/h		
			3rd		3.6 km/h·5.1 km/h		
			4th		4.8 km/h·6.8 km/h		
			5th		6.0 km/h·8.5 km/h		
		Backward	1st	3 km/h·4.3 km/h	0.6 km/h·0.9 km/h		
			2nd		1.2 km/h·1.7 km/h		
			3rd		1.8 km/h·2.6 km/h		
			4th		2.4 km/h·3.4 km/h		
			5th		3.0 km/h·4.3 km/h		
Maximum speed km/h *5	Assistant controller	Forward	1st	6 km/h	1.2 km/h·1.7 km/h		
			2nd		2.4 km/h·3.4 km/h		
			3rd		3.6 km/h·5.1 km/h		
			4th		4.8 km/h·6.8 km/h		
			5th		6.0 km/h·8.5 km/h		
		Backward	1st	3 km/h·4.3 km/h	0.6 km/h·0.9 km/h		
			2nd		1.2 km/h·1.7 km/h		
			3rd		1.8 km/h·2.6 km/h		
			4th		2.4 km/h·3.4 km/h		
			5th		3.0 km/h·4.3 km/h		
Maximum user weight					160 kg *2		
Maximum total weight					212 kg *6		
Maximum safe slope angle, rated slope					6 degree *3		
Maximum obstacle climbing and descending					Maximum obstacle height depends on the wheelchair configuration		

Model		E-Drive NXT
Wireless Technology	Type	Bluetooth Ver. 5.0 (Bluetooth Low Energy)
	Carrier Frequency	2400 MHz ~ 2483.5 MHz
	Modulation	GFSK
	Output power	+4 dBm max
	Range	Approx. 10 m
	Model Name	FWM7BLZ20B
Operating conditions	environment	Inside and outside
	temperature	-25 to 50 °C *4
	humidity	No condensation
IEC waterproof standard		IPX4 (resistance against splashing water)
IEC dustproof standard		IP5X

*1 Measured according to ISO 7176-4 : 2008 (24-inch wheels, new fully charged battery, and ambient temperature of 18–25°C, weight 100 kg)

*2 The E-Drive NXT unit can withstand a maximum user wheight of 160 kg.
However, confirm the detailed specifications, including the frame strength, with the wheelchair manufacturer.

*3 This is the value when adjusted under the following conditions.
· With the casters and rear tires touching the ground, and the auxiliary wheels on the end of the anti-tip bars at a height of 35 to 50 mm from the ground
· With a distance of 245 mm or more from the back pipe to the center of the auxiliary wheels on the end of the anti-tip bars
The maximum safe slope angle specified by the wheelchair manufacturer takes precedence, so be sure to check with the manufacturer.

*4 This is the available temperature range. Confirm the recommended temperatures for “1. Characteristics and handling”

*5 The maximum achievable speed depends on the wheel size (16” 6km/h, 22” 7,8km/h, 24” 8,5km/h). Maximum achievable speed when using the assistant control will always be 6km/h

*6 E-Drive NXT can withstand a maximum total wheight of 212 kg (E-Drive NXT + User + Wheelchair + Luggage).
However, confirm the detailed specifications, including frame strength, with the wheelchair manufacturer. Also to define a specific user weight, please refer to the “Weight Calculator” on Decon´s website, www.decon.se/en

8

9 What to Do

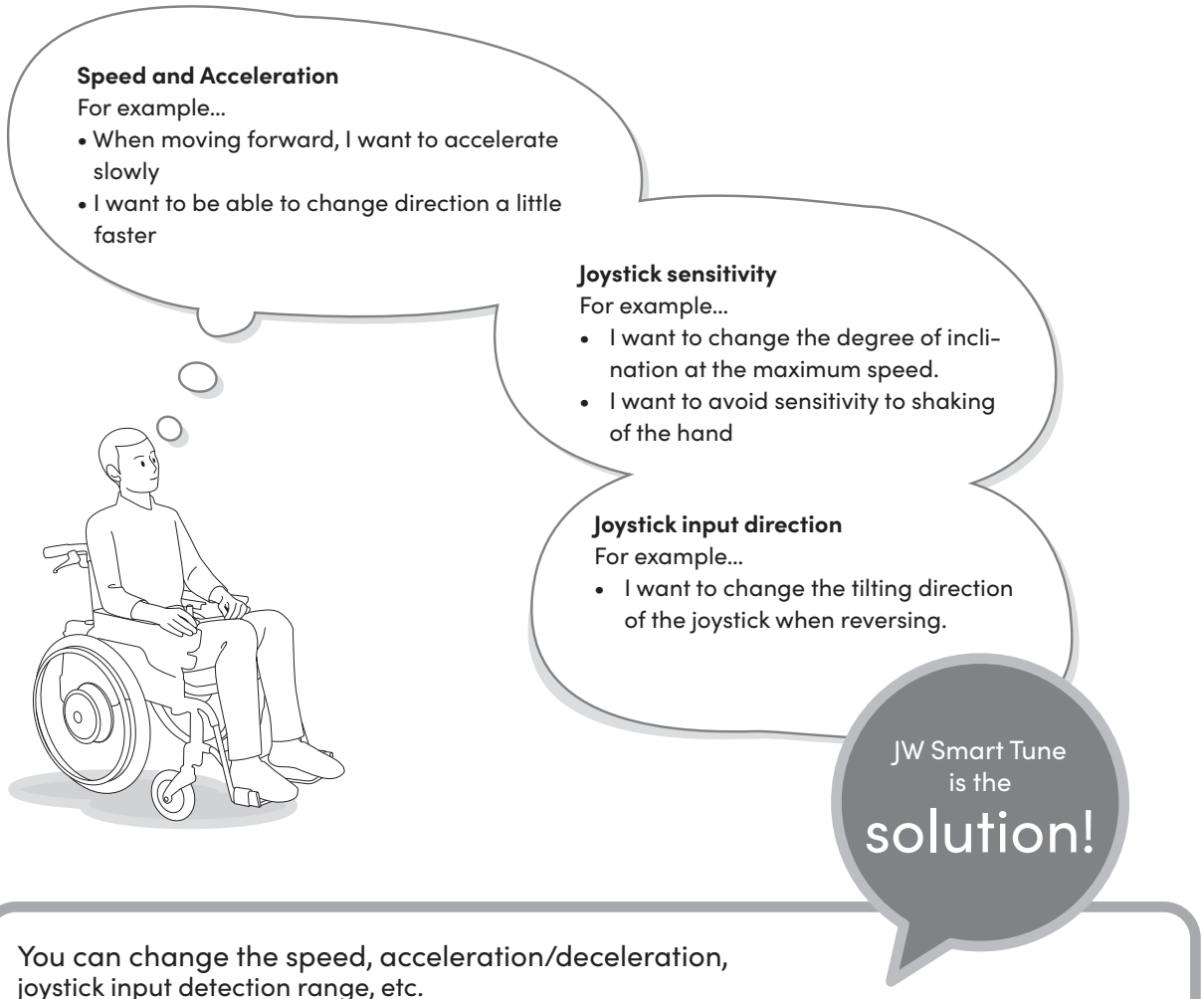
This chapter provides information on how to change functions and settings, as well as what to do if you encounter any problems.
If you have any questions or are unable to resolve the issue, contact your dealer.

Changing the settings

The dedicated "JW Smart Tune" software allows the wheelchair user to change the settings of this product to suit their physical condition and the usage style.
To change the settings, consult the guidance of experts such as a physical therapist or occupational therapist at the dealer.

Driving Parameters

You can adjust settings such as ease of acceleration and joystick sensitivity.



You can change the speed, acceleration/deceleration, joystick input detection range, etc.

to suit your usage.

Functional Parameters

Settings for various functions associated with operation, such as LCD brightness and operation sound.

◖ **Auto power off function**

- Setting 1: The power turns off if the joystick has not been operated for 10 minutes. (Default setting)
- Setting 2: The power turns off if the joystick has not been operated for 60 minutes.
- Setting 3: The power does not turn off automatically.

◖ **Electromagnetic brake operation timing**

- Setting 1: The electromagnetic brake is applied 10 seconds after the wheelchair stops. (Default setting)
- Setting 2: The electromagnetic brake is applied immediately after the wheelchair stops.

◖ **Battery indicator**

- Pattern 1
  100 → 95 → 90 → (all in 5% increments) → 10 → 5 → 1 → 0
- Pattern 2
  100 → 80 → 70 → 60 → 50 → 45 → 40 → (then in 5% increments) → 10 → 5 → 1 → 0

Use the dedicated JW Smart Tune software (available for Windows PCs and Android devices) when setting driving parameters.
When using JW Smart Tune, the Bluetooth module built into the power wheelchair unit is used
(the Bluetooth module built into this unit is only used when setting parameters using JW Smart Tune).
When setting parameters relating to driving using JW Smart Tune, please ensure that the settings you intend to use have been made in the presence of an expert.
Also, as the driving characteristics will change, please practice sufficiently until you are familiar with the new settings.
Bluetooth is designed for short-range communication (approximately 10m) and requires pairing the first time it is connected;
pairing encrypts the communication to ensure confidentiality against eavesdropping. In addition, by setting a password for each vehicle in JW Smart Tune,
you can maintain the confidentiality of each vehicle's settings and driving history.
As Bluetooth wireless communication is designed for short distances,
communication is likely to be unstable if you use it near other communication devices (such as wireless LAN) or devices that emit electromagnetic waves.
Please check that the settings have been completed with the communication connection in a normal state,
and also check that the settings are as intended in the test run described above.
If E-Drive NXT is used outside the country of purchase, it must be used in accordance with the laws and regulations of that country.
Refer to the JW Smart Tune manual for details of how to connect, check the communication status and make settings.

Troubleshooting

It provides information on symptoms of malfunctions and their solutions.
If you are unable to resolve the issues yourself, consult your dealer and request repairs.

Error codes and LCD indication list

LCD Indication	Buzzer	Displayed Condition	Problem	What to do / Explanation
		The power switch is turned on and the clutch levers are in the manual drive position.		Set the clutch levers to the power drive position. If the problem is not resolved, a malfunction may have occurred. Contact your dealer.
	Beeps (Pi Pi) (4 times)	When the clutch disengages while traveling in the power drive position.	The wheelchair moves a little and then stops.	Set the clutch levers to the power drive position. If the problem is not resolved, a malfunction may have occurred. Contact your dealer.
 	Beep (Pi -)	The power is tuned on while operating the joystick, any button other than the power button, or the accelerator lever.	The wheelchair does not operate.	Turn the power off and then turn it on again without touching the joystick, any button other than the power button, or the accelerator lever. If the problem is not resolved, a malfunction may have occurred. Contact your dealer.
 	Beeps (Pi Pi-) (repeatedly)	The anti-tip bar is folded.	The wheelchair can be driven as is.	Pull out the anti-tip bar. The warning display will be cleared when both anti-tip bars are pulled out and locked.
	Beeps (Pi - Pi - Pi -)... (repeatedly until it disappears)	Excessive load is applied on the motor.	The wheelchair can be driven as is.	Reduce the load by avoiding uphill driving and carrying heavy loads. The warning display will be cleared when the load is reduced.

LCD Indication	Buzzer	Displayed Condition	Problem	What to do / Explanation
	Beeps (Pi Pi Pi) (repeatedly)	The load is applied on the motor, causing the internal temperature to increase.	The motor output is limited.	Reduce the load by avoiding uphill driving and carrying heavy loads. The warning display will be cleared when you turn off the power, wait for the motor to cool, then turn the power back on.
	Beeps (Pi Pi Pi) (repeatedly)	The battery becomes too cold or too hot.	The motor output is limited.	Use the wheelchair in an environment with an appropriate ambient temperature. ▶ **P.92**
	Beeps (Pi -Pi -...) (repeatedly)	Load is being applied to the motor.	The wheelchair can be driven as is.	Reduce the load by avoiding uphill driving and carrying heavy loads. The warning display will be cleared when the load is reduced.
	Beeps (Pi Pi...) (repeatedly)	A high load is being applied to the motor for a certain period of time.	The motor output is limited.	Do not drive continuously under high load. The warning display will be cleared when the load is reduced.
	Beep (Pi -) (2.5 seconds)	Excessive load is applied on the motor.	The wheelchair stops.	Do not drive continuously under high load. Restart.
 	Beep (Pi -)	W3 occurs repeatedly.	The wheelchair stops.	The warning display will be cleared when you turn the power off and then on again.
	Beeps (Pi - Pi -_Pi - Pi -...) (repeated until the warning disappears)	The regenerative current exceeds a threshold.	Limit the speed.	Reduce the load by avoiding descending steep slopes and carrying heavy loads.

LCD Indication	Buzzer	Displayed Condition	Problem	What to do / Explanation
	Beeps (Pi -Pi -...) (repeated until the warning disappears)	The internal battery temperature exceeds the normal range.	The speed is limited to 1 km/h.	Use the wheelchair in an environment with an appropriate ambient temperature. ► **P.92**
	Beep (Pi -) (every 15 seconds until it disappears 5 times)	Battery residual capacity caution.	The wheelchair can be driven as is.	Charge or replace the battery immediately.
 Controller Lock  App Lock		The anti-theft function is activated.	The wheelchair does not operate.	Disable the anti theft function. ► **P.39**
	Beep (Pi -) (2.5 seconds)	There is a problem with the electronic components.		Contact your dealer.
	Beep (Pi -) (2.5 seconds)	The grip-type emergency stop function is activated.	The wheelchair stops.	The grip-type emergency stop function was activated. Take your hands off the assistant control lever.
		Poor communication with the battery.		Remove the battery from the battery seat and clean the battery seat and contacts. If the problem is not resolved, a malfunction may have occurred. Contact your dealer.

When driving

Problem	Check point	What to do / Explanation
No response to joystick operation, no power	Is the battery inserted correctly?	Reinsert the battery correctly.
	Has the power been turned off by the auto power off function?	Turn the power off and then on again.
	Is the power for the assistant controller turned on?	Turn off the power to the assistant controller.
Slow speed, insufficient power	Is the speed set to slow using the speed selector button?	Set the speed to high.
	Are the parking brakes still engaged?	Disengage the parking brakes.
	Is the battery cold?	Use in an environment with an appropriate ambient temperature. When using a lithium-ion battery ▶ **P.92**
	Are any settings changed for speed or acceleration?	Contact your dealer.
Short travel range	Is the battery sufficiently charged?	Charge or replace the battery. ▶ **P.95**
	Is the battery deteriorated?	Replace the battery.
	Are you driving uphill a lot, or carry a heavy load?	Reduce the load by avoiding uphill driving and carrying heavy loads.
	Is the tire air pressure low?	Make sure the air pressure in the tires is correct. When using 24-inch tires ▶ **P.51**
Traveling in the manual drive position is difficult	Is the tire air pressure low?	Make sure the air pressure in the tires is correct. When using 24-inch tires ▶ **P.51**
	Are the parking brakes still engaged?	Disengage the parking brakes.
No operation sound from the controller	Is the device set to mute?	Disable the mute settings. ▶ **P.38**

Problem	Check point	What to do / Explanation
Abnormal vibration or noise	Does the axle mounting portion of the wheelchair feels loose?	Contact your dealer.
	Is the wheelchair frame or caster wobbly?	Contact your dealer.
	Is there any abnormal noise coming from the drive unit?	Contact your dealer.

When using assistant controller

Problem	Check point	What to do / Explanation
Accelerator lever does not respond	Has the power been turned off by the auto power off function?	Turn the power off and then on again.
	Is the power for the controller turned on?	Turn off the power to the controller.

When charging

Problem	Charger LED	Battery LED	Check point	What to do / Explanation
Does not charge	Off	Off	Are the power cord and the charging plug connected?	Connect them.
	Off	Off	Are you able to charge another battery?	If the charger is able to charge the battery, the charger is normal. If the charger is unable to charge the battery, the charger may be faulty. For any malfunctions, contact your dealer.
	Flashing yellow (once per second)	Off		Because the charger has remained in standby mode for a long time, it has stopped charging the battery. Wait for the battery temperature to drop and try to charge the battery again.
	Flashing red (once per second)	Off	Are you able to charge another battery?	Indicates a communication error between the charger and the battery. Check the charger and battery terminals, clean them with dry cloth or the like, and then charge again. If the charge lamp flashes red again, an equipment failure may have occurred. Unplug the power cord to stop charging and contact your dealer.
	Lit red	Off		The charger may be faulty. Unplug the power cord to stop charging the battery, and contact your dealer.
	Lit yellow	Off		The battery may be faulty or has reached the end of its lifespan. Unplug the power cord to stop charging the battery, and contact the retailer or your dealer.

Problem	Charger LED	Battery LED	Check point	What to do / Explanation
Prolonged standby mode	Flashing green (once per second)	All the remaining capacity indicator lamps are flashing	Is the battery temperature appropriate?	This does not indicate a malfunction. Wait until the battery reaches an appropriate temperature.
Stops charging halfway	Flashing yellow (once per second)	1 and 3 ↕ 2 and 4 turn on alternatively	Is the ambient temperature appropriate?	After the battery has cooled down, try charging it again in an environment with an appropriate temperature.
The charger emits an odor	The lamp display varies with the conditions	The remaining capacity indicator lamp is lit		The charger may emit an odor immediately after it is put to use, but the odor will go away eventually. If you feel that the odor persists, the charger may be faulty. Contact your dealer.

Frequently Asked Questions

Battery

Q Can I store the battery without using it?

A Batteries are consumables.
Even if battery is not used, and stored over a long period of time, it will deteriorate and its capacity will decrease. If you have multiple batteries, alternate between the batteries.

Q Does it take a long time to charge the battery?

A When charging a new battery at the hot place, or immediately after travel, it is likely to cause its temperature increase. To prevent damage to the battery from high temperatures, the charging time may be extended or charging may stop before the battery is fully charged. Make sure the battery has cooled down and then try to charge it again.

Q Even after charging is completed, the four capacity indicator lamps are not lit.

A Charging may have stopped due to an increase in battery temperature. This happens when charging in a high temperature environment or when charging a new battery. Remove the battery from the charger and then try to charge it again.

Q When am I expected to replace the battery?

A Battery life varies depending on usage and storage conditions, travel conditions, temperature, and charging method. Batteries are consumables. If the distance you can travel on a single charge becomes significantly shorter, consider it as time to replace the battery with a new one. The life of the Li-ion battery is 8 years from its initial charging, 7,200 Ah integral charge capacity or the battery deterioration level drops below 25%.
The capacity indicator lamps start prompting you from three months prior to the battery becoming no longer chargeable due to its end-of-life, when the integral charge capacity reaches 6,900 Ah or the battery deterioration level drops 50%. Replace the battery immediately.

Boarding an airplane and using the wheelchair overseas

Q The airline company has asked me to submit flight documents.

A You can download the flight documents online.
Visit our website www.decon.se/en.

Q Can I charge the battery overseas? Do I need a converter?

A The charger is compatible with 100–240 V AC, 50/60 Hz.
If you have a power plug conversion adapter, you won't need a converter.

Contact with water

Q Can I go out when it is raining?

A Even if the battery or drive unit gets wet from light rain, it will not be damaged.
After use, wipe off any moisture and allow to dry. However, going out in the rain can be dangerous due to slippery tires and poor visibility. Avoid going out if possible, and if it is unavoidable, drive carefully.

Q What if water gets into the battery or drive unit?

A If water gets into the battery, charger, or the drive unit of the electric power unit, stop using the wheelchair and consult your dealer immediately.
Even if the wheelchair works after getting wet, it may cause malfunction later.

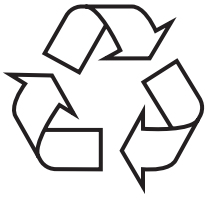
Disposal of Wheelchairs and Batteries

- Disposing of the wheelchair

  When the E-Drive NXT is at the end of its service life and must be disposed, contact your local government office first for recycling and follow their instructions. Or contact your dealer to recycle your used E-Drive NXT and its batteries.

- Recycling the battery

  The battery for E-Drive NXT is a recyclable battery that contains valuable resources. Contact the dealer to recycle your used batteries.



- About the European WEEE Directive 2012/19/EU



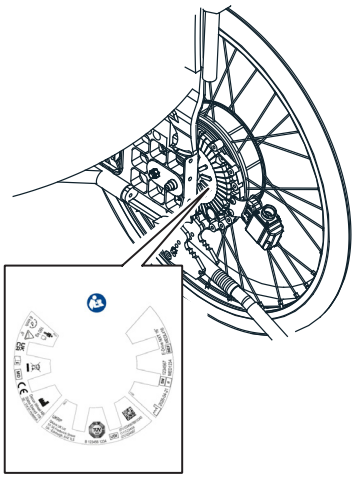
The E-Drive NXT and its accessories are subject to the European WEEE Directive. Follow the applicable regulations of your country or region when discarding this instrument or its accessories.

(WEEE stands for Waste Electrical and Electronic Equipment.)

Inquiry and Warranty

Inquiry and serial number location

For inquiries about inspection, repair, and service needs of your E-Drive NXT contact the dealer from which you purchased the product.
When contacting, you may be asked for the serial number of your E-Drive NXT. The serial number is labeled on the back of the wheel. We recommend that you write down the number in advance.



Warranty

The warranty period for the E-Drive NXT is 2 years from the date of purchase.
During this warranty period, if there is a material or manufacturing defect in the E-Drive NXT that you have purchased, the defective parts will be replaced or repaired free of charge. The warranty covers the power unit, controller, assistant controller, and charger. Consumable parts, such as the battery, tires, and tubes, are excluded from this warranty.
This warranty does not cover malfunctions due to either the user's intentional misuse or negligent use, such as malfunctions that are caused by use other than that specified in this owner's manual. This warranty also does not cover malfunctions due to modification of the unit or continuous use under conditions other than the specified conditions, such as exceeding the maximum weight etc., regardless of the cause of the malfunction.
Scratches, dullness, and dirt on the surface of the product through normal use are not included in the warranty.
If warranty repairs are necessary, contact the dealer where you purchased the unit.

Product Safety and Product Recall Information

Decon is keeping record of used components and assigned serial numbers. In the rare case of safety notice and/or product recall, Decon is able to contact the national distributor or final retailer. They will then be able to contact and inform the end user about any measures to be taken.

Serious incidents involving E-Drive NXT shall be reported to Decon and the competent authority of the member state where the user/patient is established.

10 Recommended Periodic Inspection

The standard service life of E-Drive NXT unit is six years (excluding consumables such as tires and batteries).
The standard service life is the period during which the product performance is expected to be maintained if periodic inspection and maintenance are performed.
However, depending on usage and travel range, the electric power unit may become unusable before the six years have passed.
We recommend replacing the E-Drive NXT unit that has exceeded the standard service life.
To ensure safe and comfortable use of the wheelchair, have your dealer check it every 6 months.
(Inspection is fee-based)

⚠ WARNING

- **Do not use if you notice any abnormalities with the wheelchair.**
  Continued use in such conditions may cause the wheelchair to breakdown during travel, resulting in you losing balance and tip over.

- **Tires are consumables.**
  If the grooves are worn or cracked, replace immediately.

TIP

The above information is for the electric power unit.
For inspection of a wheelchair equipped with this product, consult the dealer where you purchased the product.

Daily Checks

1.	Exterior	Visually check the components, including charger and power cord, and ensure that they are not damaged.
2.	Anti-tip device	Make sure that the anti-tip device is in the correct position and locked in place.
3.	Rear tires	Make sure that there is tire depth, there are no cracks, and there is sufficient air pressure. If the pressure is not enough, pump up E-Drive NXT according to “8 Dimensions and Specifications”.
4.	Parking brakes	Make sure that the parking brakes can stop the wheels from moving, and that they are installed securely to the frame.
5.	Wheels	Make sure that the wheels are not deformed and the spokes are not broken.
6.	Casters	Make sure that there is tire depth, and there are no cracks. Make sure that the caster forks are not damaged. Make sure that the nuts securing the tires are not loose.
7.	Battery	Check the residual capacity.

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